Office of Vocational Rehabilita

p. 197

Annual Report
of the
Federal Security Agency

1946

HD7123
.U1 1946

M.C. MIGEL LIBRARY
AMERICAN PRINTING
HOUSE FOR THE BLIND

Annual Report
of the
Federal Security Agency

FOR THE FISCAL YEAR
1946

48822-MIGEL-A

PRINCIPAL ADMINISTRATIVE OFFICERS

of the

FEDERAL SECURITY AGENCY

Watson B. Miller	*Administrator*
Maurice Collins	*Assistant Administrator*
Leo L. Miller	*Executive Assistant to the Administrator*
Mary E. Switzer	*Assistant to the Administrator*
Harry N. Rosenfield	*Assistant to the Administrator*
Perrin Lowrey	*Assistant to the Administrator*
Henry C. Iler	*Assistant to the Administrator*
Jack B. Tate	*General Counsel*
Thomas J. Woofter	*Director of Research*
Zilpha C. Franklin	*Director of Information*
Marion A. Stephens	*Budget Officer*
Arthur B. McLean	*Director of Personnel*
Taylor H. McCauley	*Director of Service Operations*
Dean Snyder	*Executive Officer, Community War Services*
Robert Ayers	*Director, War Property Distribution*
A. Delafield Smith	*Assistant General Counsel*
Alanson W. Willcox	*Assistant General Counsel*
Gladys Harrison	*Assistant General Counsel*
Earle V. Simrell	*Assistant General Counsel*
Daniel P. Willis	*Assistant General Counsel*
Bernice Lotwin	*Assistant General Counsel*

UNITED STATES GOVERNMENT PRINTING OFFICE . . WASHINGTON : 1946

LETTER OF TRANSMITTAL

Federal Security Agency,
Washington, D. C., November 1, 1946.

Sir:

I have the honor to submit herewith the annual report of the Federal Security Agency for the fiscal year 1946.

Watson B. Miller
Federal Security Administrator.

The President,
The White House,
Washington, D. C.

FEDERAL SECURITY AGENCY

Watson B. Miller, *Administrator*
Maurice Collins, *Assistant Administrator*

FOOD AND DRUG ADMINISTRATION

Paul B. Dunbar . . . . *Commissioner*

OFFICE OF EDUCATION

John W Studebaker . . . . *Commissioner*

OFFICE OF VOCATIONAL REHABILITATION

Michael J. Shortley . . . . *Director*

PUBLIC HEALTH SERVICE

Thomas Parran . . . . *Surgean General*

SAINT ELIZABETHS HOSPITAL

Winfred Overholser . . . . . . *Superintendent*

SOCIAL SECURITY BOARD

Arthur J. Altmeyer . . . . *Chairman*
Ellen S. Woodward; George E. Bigge . . *Members*

AMERICAN PRINTING HOUSE FOR THE BLIND

A. C. Ellis . . . . *Superintendent*

COLUMBIA INSTITUTION FOR THE DEAF

Percival Hall . . . . *President*

HOWARD UNIVERSITY

Mordecai W. Johnson . . . . *President*

CONTENTS

Page

Letter of transmittal III
Foreword XIII

Section 1—FOOD AND DRUG ADMINISTRATION

Introduction 1
Food, Drug, and Cosmetic Act 3
  Legislation and regulation-making activities 3
  Food adulterations involving health 4
  Food adulterations involving filth and decomposition 11
  Food violations involving economic cheats 26
  Sea-food inspection 32
  Actions on drugs 32
  Actions on devices 38
  Vitamin, mineral, and other products of special dietary significance 40
  New drugs 41
  Actions on cosmetics 42
  Court interpretations of the Food, Drug, and Cosmetic Act 43
  Certification services 49
Other acts enforced 53
Scientific investigations 54
Enforcement statistics 60
Bibliography 65

Section 2—OFFICE OF EDUCATION

Foreword 69
Elementary education 74
Secondary education 84
Vocational education 102
  Agricultural education 102
  Home economics education 109
  Trade and industrial education 112
  Employee-employer relations 114
  Occupational information and guidance 115
Higher education 119
Central services 134
  Research and statistical service 134
  Information and publications service 135
  Office of Education library 139
  Administrative management and services section 143
International educational relations 145
Auxiliary services 151
  Service to libraries 151
  Educational uses of radio 156
  Visual aids for war training 161

Page
School administration 167
Surplus property utilization 176
American Printing House for the Blind 186
Columbia Institution for the Deaf 187
Howard University 189

SECTION 3—OFFICE OF VOCATIONAL REHABILITATION

Introduction 197
  Extent of need for vocational rehabilitation 198
  Scope and administration of the Federal act 199
  Organization of the Office of Vocational Rehabilitation 200
  Advisory committees 200
  Cooperative relationships with other agencies 201
  Services to the individual 202
  State plans and certification of funds to States 203
Working with the States 204
  Advisement, training, and placement services 204
  Physical restoration services 206
  Services for the blind 209
  Management services 211
  Information services 212
  Special projects and/or studies 215
Services provided by the States 216
  Number of persons served 216
  Sources of referrals 217
  Services purchased for the disabled 218
  Characteristics of and services to persons rehabilitated 219
  Types of disabled persons served 220
  Types of training provided and placements made 220
  Increase in earned income after rehabilitation 221
  District of Columbia Rehabilitation Service 222
APPENDIX:
  Table 1—Summary of case load during fiscal year ended June 30, 1946 223
  Table 2—Total case load, by region and State, during fiscal year ended June 30, 1946 223
  Table 3—Number of new cases received, by source of referral, during fiscal year ended June 30, 1946 225
  Table 4—Number of individuals for whom services were purchased, by type of such services, during fiscal year ended June 30, 1946 226
  Table 5—Number of persons rehabilitated into employment, by type of job in which they were placed, fiscal year ended June 30, 1946 227
  Table 6—Total expenditures from Federal and State funds for vocational rehabilitation by boards of vocational education during the fiscal year ended June 30, 1946 229
  Table 7—Total expenditure from Federal and State funds for vocational rehabilitation of the blind by State commissions or agencies for the blind during the fiscal year ended June 30, 1946 230

SECTION 4—PUBLIC HEALTH SERVICE

Page
Foreword of the Surgeon General 231
Office of the Surgeon General 241
  Division of Commissioned Officers 242
  Dental Division 244
  Sanitary Engineering Division 245
  Division of Nursing 253
  Division of Public Health Methods 256
  Office of International Health Relations 265
National Institute of Health 268
  National Cancer Institute 269
  Division of Infectious Diseases 273
  Division of Physiology 280
  Biologics Control Laboratory 284
  Chemistry Laboratory 288
  Industrial Hygiene Research Laboratory 289
  Pathology Laboratory 293
  Zoology Laboratory 296
  Research Grants Office 299
Bureau of Medical Services 300
  Hospital Division 301
  Freedmen's Hospital 306
  Mental Hygiene Division 307
  Foreign Quarantine Division 315
  Office of Dietetics 319
  Office of Nursing 320
  Medical Care in Other Agencies 321
Bureau of State Services 328
  Office of Public Health Nursing 329
  States Relations Division 333
  Venereal Disease Division 347
  Tuberculosis Control Division 356
  Industrial Hygiene Division 361
  District offices 370
APPENDIX:
Fiscal statement:
  Table 1—Statement of appropriations, obligations, and balances 372
  Table 2—Funds made available from other sources 373
  Table 3—Allocations from Federal Security Agency 373
  Table 4—Miscellaneous receipts 373
Personnel:
  Table 5—Civil service personnel 374
Medical relief activities:
  Table 6—Volume of medical service by type of station 374
  Table 7—Volume of medical services for various classes of beneficiaries, by type of station 375
  Table 8—Medical services furnished by Marine hospitals and medical relief stations, 1912–46 378
  Table 9—Transactions at Marine hospitals and medical relief stations 379
  Table 10—Distribution of medical services, by class of beneficiary, Marine hospitals 381

Medical relief activities—Continued Page
Table 11—Medical services furnished Coast Guard, 1923–46 381
Table 12—Services furnished at medical stations for Coast Guard personnel, 1914–46 382
Freedmen's Hospital:
Table 13—Volume and type of service, 1942–46 383
Table 14—Discharges, autopsies, and consultations, by departments and services 383
Table 15—Residence and pay status of discharged patients 384
Table 16—Appropriations and expenditures 384
Hospitals for drug addicts and mental patients:
Table 17—Patient movement, Lexington and Fort Worth hospitals 385
Foreign quarantine activities:
Table 18—Transactions at Maritime quarantine stations 388
Table 19—Transactions at United States airports of entry 389
Table 20—Transactions at Mexican border stations 390
Table 21—Applicants for immigration visas medically examined and certified 390
Table 22—Aliens medically examined and certified 391
Assistance to States:
Table 23—Payments to States for general health, venereal disease control, and tuberculosis control 394
Public Health Nursing:
Table 24—Nurses employed for public health work, 1942–46 395

SECTION 5—SAINT ELIZABETHS HOSPITAL

Historical note 396
Foreword 397
St. Elizabeths Hospital 399
    Movement of population 399
    Medical department 401
    Division of clinical psychiatry 404
    Medical and surgical department 410
    Laboratory 412
    Administrative department 415
    Needs of the hospital 418
    Legislation 419
Publications 420

SECTION 6—SOCIAL SECURITY BOARD

Social security in a year of transition 423
    Summary of recommendations 425
        A comprehensive program of social security 427
        Old-age and survivors insurance 428
        Unemployment insurance 429
        Additional insurance provisions 430
        Public assistance 430
    Social security risks and resources in 1945–46 431
        Unemployment 432
        Old age 433
        Death of the breadwinner 435
        Disability 437
        Medical care 439

Page
Old-age and survivors insurance 444
  Old-age and survivors insurance in 1945–46 444
    Workers and their wage credits 444
    Insurance status 445
    Applicants for account numbers 445
    Beneficiaries and their benefits 445
    Appeals 447
    Administrative developments 447
    Administrative costs 448
    Financing the program 449
    Civilian war benefits 450
  Improving old-age and survivors insurance 451
    Extension of coverage 452
      Self-employment 452
      Employer-employee relationship 453
      Agricultural employment 453
      Household employment 454
      Employment by nonprofit organizations 455
      Employment by State and local governments 456
      Federal civilian employment 457
      Military service 458
      Railroad employment 459
  Cash benefits for permanent disability 459
    Benefit changes and other proposed modifications 461
      Insurance rights 461
      Family benefits 463
      Administration 464
Unemployment insurance 466
  Unemployment insurance in 1945–46 467
    Covered workers 467
    Claims for unemployment benefits 467
      Course of the claims load 467
      Steps to deal with heavy claims loads 469
      Interstate claims 470
    Unemployment benefit payments 471
      Duration of benefits 471
      Amount of benefits 472
    Disqualifications and appeals 473
      Refusal of suitable work 474
      Availability for work 475
      Extent and type of disqualification 475
    Cash benefits for temporary disability 476
    Financing the Federal-State program 478
      Funds available for benefits 478
      Costs of administration 480
    Other aspects of Federal-State administration 481
      Operating problems 482
      Legislative policy 482
      Coordination and dissemination of information 483
  Improving unemployment insurance 483
    A Federal-State system of unemployment insurance 484
      Coverage 484
      Financing 485

Unemployment insurance—Continued
Improving unemployment insurance—Continued
A Federal-State system of unemployment insurance—Con.

Page
A system of Federal grants-in-aid 485
Minimum benefit standards 486
The Nation's stake in unemployment insurance 487
Public assistance 488
Public assistance in 1945–46 488
Effects of war and reconversion on need for assistance 489
Recipients and their payments 490
Old-age assistance 490
Aid to dependent children 491
Aid to the blind 491
General assistance 492
Civilian war assistance 492
Assistance to enemy aliens and others 492
Financing public assistance 493
Administrative developments 493
Determining amounts of assistance 494
Appeals and fair hearing 494
Domiciliary care 495
War emergency programs 495
Surplus property disposal 495
International activities 495
Improving public assistance 496
Financing public assistance 496
Special Federal aid to low-income States 496
State distribution of Federal and State funds 500
Federal matching maximums for individual payments 501
Federal participation in administrative costs 501
Assistance for any needy person 502
Federal funds for general assistance 502
Definition of a dependent child 503
Residence requirements 504
Citizenship requirements 505
Property restrictions 505
Extension of Federal aid to the Virgin Islands and Puerto Rico 505
Scope of assistance and service 505
Medical care 506
Welfare services 507
Determination of need 508
Administrative organization 509
General administration 511
The Social Security Board 511
The Executive Director 513
Bureaus and Offices 513
Regional and field organization 514
Merit systems of personnel administration in the States 514
Personnel 515
Appropriations and expenditures 516
Social Security legislation enacted after June 1946 517
Selected references on legislative developments and proposals 522
Appendix 523

CHARTS

Page

1. Payments for all public aid (public assistance and Federal work programs) and for public assistance and social insurance under the Social Security Act, January 1935–June 1946 ---- 424
2. Social insurance beneficiaries and public assistance recipients under the Social Security Act, February 1936–June 1946 ---- 432
3. Income payments to individuals, January 1929–June 1946 ---- 434
4. Payments under selected social insurance and related programs, January 1938–June 1946 ---- 438
5. Average monthly amount of benefits in force for specified family groups on the old-age and survivors insurance rolls, June 30, 1946 ---- 446
6. Weekly number of claims for unemployment benefits under State laws, by type of claim, August 4, 1945–June 29, 1946 ---- 468
7. State-local expenditures for the three special types of public assistance as percent of income payments, by State, 1945 ---- 497
8. Average monthly old-age assistance payment per recipient, by State and source of funds, December 1945 ---- 499

APPENDIX

Regional and field organization as of June 30, 1946 ---- 523
Tables ---- 526

SOCIAL SECURITY BOARD ADMINISTRATION

1. Personnel and salaries, travel, and general expenses, by Bureau or Office, fiscal year 1945–46 ---- 526
2. Appropriations and expenses, fiscal years 1944–46 ---- 526

FINANCING SOCIAL INSURANCE UNDER THE SOCIAL SECURITY ACT

3. Contributions collected and trust fund operations, fiscal years 1944–46 ---- 527

OLD-AGE AND SURVIVORS INSURANCE

4. Monthly benefits in force for family groups, June 30, 1946 and 1945 ---- 527
5. Selected data on benefits and wage credits, by State, for specified periods, 1944–46 ---- 528
6. Benefits in force and in current-payment status, payments certified, and workers with wage credits, for specified periods, 1944–46 ---- 529

UNEMPLOYMENT INSURANCE

7. Selected data on benefits, claims, employment, and finance, by State, for specified periods, 1945–46 ---- 530
8. State accounts in the Federal unemployment trust fund, by State, fiscal year 1945–46 ---- 531

SPECIAL TYPES OF PUBLIC ASSISTANCE UNDER PLANS APPROVED BY THE SOCIAL SECURITY BOARD

9. Number of recipients and average payment, June 1946, and total payments to recipients, fiscal year 1945–46, by program and State ---- 532
10. Federal grants certified and total expenditures and percent from Federal funds, by program and State, fiscal year 1945–46 ---- 533

FOREWORD

Overshadowing all else during fiscal 1946 was the cessation of hostilities with victory for the United States and our allies in World War II. This event had its effects on the work of the Federal Security Agency. Immediate steps were taken to conclude the several special programs that had been assigned to the Agency ancillary to the prosecution of the War. By June 30, 1946, most of these efforts had been brought to conclusion and liquidation was nearing completion.

The Office of Community War Services, which had through the war years carried the heavy load in looking to the war-created needs for the provision of health, medical care, welfare, recreation, education, social protection, and related services, was the strong arm of the Government in the security field. It demonstrated, in the stress of war, the validity of integrated effort for health, education, and welfare. While a complete elimination of all overlapping or gaps in these services for war cannot be claimed, certainly this Office was of material aid in keeping the home front clear of chaos. Special recognition for the completion of important missions in this Office was given in the awarding of the Medal for Merit to Mark McCloskey of New York and Charles P. Taft of Ohio.

With foresight, the Congress, in October 1944, provided for the disposition of war assets by enacting the Surplus Property Act (Public Law 456, 78th Cong.). By section 13(a) of this act Congress extended to educational, health, and welfare institutions and organizations the opportunity to acquire a just portion of this property. The Surplus Property Administration (now the War Assets Administration) requested that the Federal Security Agency assist it in seeking to implement the will of Congress that surplus war property be disposed of to nonprofit institutions and instrumentalities at a value which would take into account benefits accruing to the United States from the use of such property by such agencies. To this end the Office of War Property Distribution, established in the Office of the Federal Security Administrator, cooperated with and acted as the agent of the War Assets Administration. Through facilities of the Public Health Service, the Office of Education, and the Social Security Board, procedures and policies were fostered to aid distribution of needed property to health, educational, and welfare agencies. In addition, this Agency was concerned with donations of excess property by the Army and Navy to educational institutions under statutes other than the Surplus Property Act. By the close of the fiscal year the mission of the Federal Security Agency in this field was nearing completion.

With increasing freedom from wartime functions it was possible to turn more adequate attention to the continuing job. Although the

Federal Security Agency, as such, is a stranger in a world at peace, its establishment, just two months before Germany invaded Poland, was entirely coincidental with the ominous war situation. The basic idea of a closer integration of education, health, and welfare was neither new nor of partisan origin. Federal reorganization to this end had been successively sponsored by Presidents Harding, Coolidge, Hoover, and Franklin Roosevelt. Under President Harding the Joint Committee on the Reorganization of the Administrative Branch of the Government[1] recommended the establishment of a "Department of Education and Welfare." This recommendation received strong support before the Sixty-eighth, Sixty-ninth, and Seventieth Congresses. Thereafter, President Hoover, on December 9, 1932, proposed to the Congress the establishment, in the Department of the Interior, of a "Division of Education, Health, and Recreation" with an assistant secretary in charge. Under President Franklin Roosevelt the Committee on Administrative Management,[2] on January 8, 1937, urged the establishment of a "Department of Social Welfare." This proposal, incorporated in a reorganization bill, passed the Senate and received very substantial support in the House. Thus the idea was not a new one when President Franklin Roosevelt, on April 25, 1939, proposed the establishment of the Federal Security Agency to a Congress which proved more receptive than had its predecessors.

During the fiscal year just closed, President Truman with victory in war complete and the problems of peace at hand, moved to strengthen the arm of the Federal Government for the better integration of services in the fields of education, health, and welfare. In presenting his Reorganization Plan No. 2 of 1946 to the Congress on May 16, 1946, President Truman said:

> To meet its full responsibilities in these fields, the Federal Government requires efficient machinery for the administration of its social programs. Until 1939 the agencies in charge of these activities were scattered in many parts of the Government. In that year President Roosevelt took the first great step toward effective organization in this area when he submitted Reorganization Plan I, establishing the Federal Security Agency—
>
> "to promote social and economic security, educational opportunity, and the health of the citizens of the Nation."
>
> * * * * * * *
>
> The reorganization plan here presented is a second important step in building a central agency for the administration of Federal activities primarily relating to the conservation and development of human resources; but, while this step is important in itself, I believe that a third step should soon be taken. The time is at hand when that agency should be converted into an executive department.

---

[1] Better known as the "Brown Committee," of which Walter F. Brown, the President's representative, was chairman and Congressional members were Senators Smoot (Utah), Wadsworth (N. Y.), and Harrison (Miss.) and Representatives Mapes (Mich.), Temple (Pa.), and Moore (Va.).

[2] Members were Louis Brownlow, chairman, Charles E. Merriam, and Luther Gulick.

Not only did the Congress accept the Truman proposal for a strengthened Federal Security Agency, but the suggestion of departmental status was promptly followed by the introduction of a bill to this end with bipartisan sponsorship.[3]

The need for integration of the several programs in which the Federal Security Agency is concerned is a basic one. The governmental agencies—Federal, State, and local—which are charged with the administration of educational, health, and welfare services are the instrumentalities of the people, established by them to serve the needs of individuals as individuals. Some facilities of Government serve farmers, some serve industrialists and businessmen, some serve industrial workers, some serve veterans, and so forth; and the efforts of each such agency are aimed at the special problems of the several groups which need to be met in the interest of the general welfare. The educational, health, and welfare agencies are charged with a different approach. They serve the general welfare in its broad sense by serving the special needs of people, not as members of diverse groups, but as individuals. The importance of the security programs in the improvement of economic and social conditions and the maintenance of a stable economy is dominant, but the technique is to render services designed to help individuals meet conditions as they find them—through education, the improvement of health, or the provision for physical needs in time of personal economic stress.

The several security programs must meet on the common and delicate ground of treating with the personal affairs of people. This requires of the administrators in common a wholesome respect for the right of privacy. If this respect is to be effectively implemented, the prompt discovery of individual needs and the quiet and efficient delivery of available services designed to meet those needs are essential factors. Manifestly, these factors cannot be perfected unless (1) any agency to which the individual in need of some service may apply is in effective contact across the gamut of security programs, and (2) immediate administration of the several services is launched at the level of government closest to the people.

To assist in perfecting cross-program contacts for the delivery of the whole of security services to individuals without repeated applications and inquiries, Federal leadership must supply an integrated approach on the national level. This is one task of the reorganized and strengthened Federal Security Agency.

To assure the continued launching of administration at that level of government closest to the people, Federal leadership must (1) accomplish and maintain decentralized administration of Federal programs, and (2) perfect the techniques of Federal-State grant-in-aid administration to the end of mutual understanding and appreciation of the national interests and the State and local variants which must enter to shape ultimate policies in such programs. These are additional tasks of the reorganized and strengthened Federal Security Agency.

---

[3] S. 2503, 79th Cong., by Senator Fulbright (Dem., Ark.) and Taft (Rep., Ohio).

Evidences of extensive interest in the security fields were in prominence during fiscal 1946 as the Congress turned its thoughts from the waging of war to the better things of the dawning peace. During the second session of the Seventy-ninth Congress there were under consideration several hundred bills seeking to improve the security programs. In subject matter these bills were about equally divided between education, health, and welfare. Congressional committees held extensive hearings treating with these subjects, while President Truman in three messages focused the attention of Congress and the people on urgent, unmet needs. On September 6, 1945, less than a month after the fighting stopped, the President called for legislation on the broad front to implement and give substance to what Franklin Roosevelt had called the "Economic Bill of Rights." This was followed by the historic Health Message of November 19, 1945. Again, in the State of the Union Message of January 21, 1946, the key importance of security needs was highlighted. Summarizing, the President said:

> Our basic objective—toward which all others lead—is to improve the welfare of the American people. In addition to economic prosperity, this means that we need social security in the fullest sense of the term; the people must be protected from the fear of want during old age, sickness, and unemployment. Opportunities for a good education and adequate medical care must be generally available.

The Congress was responsive in its concern for health, education, and welfare, and prior to *sine die* adjournment sent to the President four acts of far-reaching importance in these fields: (1) the National Mental Health Act (P. L. 487), (2) the Vocational Education Act of 1946 (P. L. 586), (3) the Social Security Act Amendments of 1946 (P. L. 719), and (4) the Hospital Survey and Construction Act (P. L. 725). While this legislative accomplishment fell somewhat short of the President's program, it was of substantial value, and above all, indicated a healthy concern as to the place of security services in our peacetime economy.

The wartime experiences of this Agency, which form so large a part of its background as a unified Agency to date, demonstrated the practicability and clarified the validity of wholesome cooperation and intelligent integration of the several security programs. The challenge facing the Federal Security Agency as it enters fiscal 1947, its first year in a peacetime world, is: Can the unstinting efforts so freely joined to help assure victory in a world at war be mobilized to help assure to the people of the United States a fuller life in a world at peace?

SECTION ONE

FOOD AND DRUG ADMINISTRATION

INTRODUCTION

Forty years ago, on June 30, 1906, the first comprehensive national food and drug law was enacted by Congress. The law, and its successor, the Federal Food, Drug, and Cosmetic Act of June 25, 1938, have been of inestimable value in protecting American consumers and conscientious manufacturers and have contributed immeasurably to the improvement of the quality and honest labeling of the Nation's foods, drugs, and cosmetics.

On June 25, 1946, a series of meetings [1] commemorating the fortieth anniversary of the passage of the original statute were held in New York City under the auspices of the New York State Bar Association. Participating in the impressive tributes to the public value of the law were representatives of the industries subject to regulation, as well as spokesmen for consumer groups and official health enforcement agencies.

This report contains the record of the last of those 40 years, the fiscal year ending June 30, 1946. A governmental report traditionally is not expected to be sensational. Yet there is inescapable drama in the day-by-day enforcement of a law like the Food, Drug, and Cosmetic Act.

Flood waters sweep down an eastern river valley and squads of city, State, and Federal inspectors converge on the flood areas to guard the populace against consumption of storm-water-polluted foods and drugs; a worker's mind wanders, the labels are switched on bottles of two very useful drugs, and only the providential sampling of the mislabeled shipments and their identification in the laboratory prevent tragic results; a mouse drowns in a milk vat in a cheese factory, serious illness results in two States, and the manufacturer faces a criminal prosecution; in other States groups of consumers are made seriously ill and the manufacturer of a fruit beverage is fined $5,000 for using a poisonous preservative; a gadgeteer produces a contraption of colored lights to cure all diseases and the full power of the

---

[1] Food Drug Cosmetic Law Quarterly, vol. 1, No. 3, September 1946.

Federal Government is brought into play to protect his gullible victims.

These are some of the incidents the report describes, along with the unpleasant things that have happened to the minority which has ignored the requirements of the law and the welfare of the public. It records as well the successful striving of the majority of our manufacturers to do a sincere and workmanlike job of giving American consumers pure and honestly labeled foods, drugs, and cosmetics.

FOOD, DRUG, AND COSMETIC ACT

Legislation and Regulation-Making Activities

The penicillin amendment, which was signed on July 6, 1945, was discussed in the last report. Regulations issued under this amendment and changes in regulations during the year are listed under Certification Services. No bills to amend the Food, Drug, and Cosmetic Act were before Congress during the fiscal year.

The development of streptomycin and the likelihood of the production in commercial quantities of other new drugs widely useful in the treatment of serious diseases, where difficulties of manufacture and testing present unusual hazards, bring up the question of the desirability of amending the act to provide for predistribution testing by the Food and Drug Administration similar to that now in effect for penicillin and insulin. The general enforcement provisions of the act do not provide for prechecking, even at the request of manufacturers who desire this assurance of compliance before shipments are made.

Streptomycin is produced by a biological process similar to that employed in the production of penicillin. It presents substantially the same problems as those previously described for penicillin. In addition, it has an appreciable toxicity and is much more likely than penicillin to be contaminated with dangerous impurities. Recommended for a number of serious diseases in which the patients are in a critical condition, streptomycin falls within the class of drugs for which predistribution testing is believed to be essential. This pretesting is now carried out by the Food and Drug Administration on all batches of the drug manufactured, through allocation orders of the Civilian Production Administration under which the limited supplies of this drug were placed to meet the needs of the Army, Navy, Public Health Service, Veterans' Administration, and the clinical research program financed by the streptomycin producers.

The continuance of this pretesting program after CPA allocation control is released will require an amendment to the act, either specifically providing for streptomycin or generally covering new drugs for which similar controls are established as necessary.

Food Standards

No new standards for foods were promulgated during the fiscal year but hearings were held preparatory to the promulgation of several additional standards and field investigations were made in preparation for further hearings.

General enforcement regulations have covered the sanitary production of oysters, but there have been no legal standards designed to limit the water content or to establish definitely the sizes of oysters sold under various names indicative of size A hearing on definitions and standards of identity to cover these points was held in 1946. At the request of the industry operating along the Pacific coast, one of the three sessions of the hearing was held in Seattle, Wash., to take evidence on Pacific and Olympia oysters.

Another hearing was held on proposals to adopt definitions and standards of identity for various types of corn products and enriched corn products, such as meals, grits, and flours. To combat certain deficiency diseases long prevalent in the southeastern part of the United States, several of the southern States have enacted laws requiring the enrichment of certain types of corn meal and grits sold within their borders. Nutritionists from these and other States, interested in the establishment of Federal standards for enriched corn products, testified at the hearing.

The first quality standards adopted under the Food, Drug, and Cosmetic Act were for several canned fruits and vegetables, but further work on quality standards for these products was discontinued during the war. It was resumed in 1946 with a hearing on proposals to adopt amended definitions and standards of identity and quality for canned green and wax beans. This hearing was attended by canners from all areas where these articles are canned.

A court decision of interest in connection with food standards and one involving coal-tar color regulations are outlined in Court Interpretations of the Food, Drug, and Cosmetic Act.

Food Adulterations Involving Health

Deleterious Preservatives

Under the Food, Drug, and Cosmetic Act the addition of poisonous and deleterious substances to food is prohibited unless such substances are necessary for production or cannot be avoided in good manufacturing practice, in which case provision is made for the establishment of safe tolerances by regulation. The practice of using poisonous preservatives to check decomposition which could be avoided by adequate plant sanitation is a violation of this provision which was condemned without qualification by a district court in 1945. This opinion, outlined in the previous annual report, was rendered in connection with the conviction of a brewing concern which was adding a fluorine compound, hydrofluosilicic acid, to beer.

Supported by this court interpretation, the Food and Drug Administration was engaged in a project directed against such preservatives and the foods containing them when an epidemic of vomiting and diarrhea occurred associated with the drinking of an orange-type beverage found, upon investigation, to contain a poisonous preservative, monochloracetic acid. An immediate round-up of the nationally distributed beverage base used in preparing this beverage was undertaken with the active cooperation of State and local officials. Even during the seizure campaign, additional cases of illness were reported. To prevent further seizures, the manufacturing firm, which still contended that it did not use monochloracetic acid in its beverage bases, issued telegrams to almost 500 firms throughout the country, instructing them to destroy all of the firm's sirup and concentrates under supervision of Federal, State, or local officials. The firm stated that in the year 1945 it had sold a quantity of concentrate which produced over 65 million bottles of orange beverage. A criminal information, based on shipments made between late July and mid-October 1945, to which the illnesses were traced, was terminated after the close of the fiscal year by a plea of guilty and a fine of $5,000.

Other foods seized in 1946 because of the presence of monochloracetic acid included pancake sirups, chocolate flavoring sirups, salad dressings, fruit-type beverages, and chow-chow relish. These actions, together with those against "beverage stabilizers" containing this deleterious ingredient aggregated more than a hundred.

Early in the fiscal year contested seizures of two fermentation inhibitors for beverages were upheld by the court. They were labeled as nonpoisonous and harmless substances, which the court held to be misbranding, since monochloracetic acid is a poisonous and deleterious substance. When prospective users objected to the poison label required as a result of this decision, they were offered monochloracetic acid preparations under other names, without the poison label, or a new preparation containing a quaternary ammonium compound which is also a deleterious substance. In addition to keeping under surveillance foods manufactured by purchasers of these poisons, the Administration has removed dangerous commercial preservatives from the market whenever interstate shipments were encountered which were not labeled with the statement that the article is toxic, poisonous, and caustic. One of the claimants in the earlier contested seizure again contested an action against the same preservative, which was labeled to show the presence of monochloracetic acid, but without a poison declaration. A second Federal judge ruled that the product was misbranded, and quoted a famous appellate court decision: "The Federal Food, Drug, and Cosmetic Act was not made for experts. . . . The purpose of the law is to protect the public, the vast multitude which includes the ignorant, the unthinking and the credulous, who, when making a purchase, do not stop to analyze."

Spray Residues

Twenty shipments of apples bearing lead, arsenic, or fluorine residues in excess of announced tolerances were seized in 1946, in comparison with 31 in 1945. Residue removal is customarily undertaken when the apples are removed from storage, just prior to shipment. Regulatory surveillance is required throughout the year, therefore, rather than only during the harvesting season. An increased use of fluorine sprays in the western producing areas was noted, but there was no increase in the number of actionable shipments encountered.

DDT, recently made available for civilian use as an insecticide after a notable record in use by the armed services during the war, has many advantages over some insecticides that have long been in use. Toxicity studies have shown that DDT is by no means harmless, but its toxicity is less than that of several other insecticides that have been in common use. Under the provisions of the law, no deleterious ingredient should be used on food crops or in the storage, handling, or manufacture of food unless it is required, and then it should be held to proportions reasonable for crop protection and safe for public health. On such crops as leafy vegetables there are safer insecticides available, which would preclude the use of DDT. On apples and pears, on the other hand, the lead arsenate and fluorine now in use are more toxic, and no question is raised concerning the use of DDT as an insecticide for these crops. For such use, the Food and Drug Administration announced in the fall of 1945 that it would not take action against apples and pears containing not more than 7 milligrams of DDT per kilogram of fruit. At the same time, the Administration warned against the use of DDT in the production of feed and forage crops for animals, since it tends to accumulate in the fatty tissues of animals and in the fat of milk.

While they are not classed as spray residue violations, two other seizure actions involved a dangerous insecticide. The preparation, a compound sold to prevent skippers (maggots) in cured meats, contained borax.

Mineral Oil in Foods

The use of mineral oil in food is an outstanding example of the effect of current economic developments on public health. The scarcity of vegetable oil brought a widespread attempt to substitute mineral oil for food oil in various foods, including popcorn, mayonnaise and salad dressings, salad oils and oil seasonings, candy bars, potato chips, and toasted peanuts. The most flagrant substitution of this type, and the one which eventually led to court findings with respect to the deleterious character of mineral oil in food, involved popped popcorn containing, in many instances, more than a tablespoonful of mineral oil per package. The manufacturer had used over 750,000 pounds of mineral oil in popcorn it had distributed throughout the United States. In the fall of 1945 the Federal court was asked to enjoin this firm from continuing to make interstate shipments, which it had persisted in doing, despite numerous seizures. After a stubbornly contested trial, the court issued a judgment perpetually enjoining and restraining the firm from shipping popcorn containing mineral oil in interstate commerce. In granting the injunction the court stated specifically that mineral oil in food is a deleterious substance which renders the food injurious to health.

While this injunction action was pending, the firm continued to ship the mineral oil popcorn in interstate commerce, and seizure was effected on lots which could be traced, more than a hundred in all.

On the basis of this decision and of evidence developed as to the nutritional loss of essential vitamins and other harmful effects caused by ingesting mineral oil with food, the Administration announced that mineral oil salad dressings must be regarded as adulterated, even though they bear labeling that they are intended for special dietary use by individuals required to restrict their caloric intake. Mention was made in earlier reports of the fact that certain manufacturers were labeling their mineral oil dressings as food for special dietary use even when they were packed in gallon-size containers obviously suitable only for the restaurant trade, which was serving this spurious product to unsuspecting patrons. This abuse continued until the use of mineral oil dressings was proscribed in the spring of 1946. Factory investigations show that the 19 firms formerly engaged in this business in the New York area have discontinued it; only one protested on the grounds that its sales were restricted to a limited clientele on a very strict diet.

A total of 165 seizures resulted from the use of mineral oil in foods in 1946, with a large share of this number involving mineral oil popcorn. Criminal prosecutions were instituted against three shippers of candy, one of salad dressing, and one of potato chips. A case instituted in 1945 was terminated early in the fiscal year by the imposition of a fine of $2,000 and a statement by the Federal judge that it was inconceivable that a candy firm with a reputation such as that enjoyed by the defendant would resort to such illegal practices.

Other Dangerous Food Ingredients

The examination of imported whiskies, brandies, wines, and other liquors for glass particles and slivers from defective or carelessly handled bottles was continued. Detentions for filtering dropped to about 5 percent of the total cases examined, showing a progressive fundamental correction in view of the record of 25 percent detained in 1945 and 70 percent in 1944, and of the fact that the detentions in 1946 were much lower in the last half of the year than in the first.

Failure of the maple sap crop for the second successive year reduced interstate shipments to a nominal figure; no lots high in lead were encountered in these shipments. The customary control was exercised over imports of maple sugar and sirup from Canada. Again in 1946 only about 75 percent of the normal quantity was offered for entry. The percentage detained for deleading reached a new low of 58.

Surveillance over sardines from Portugal continued because of the recurrence of excessive lead from soldered tins in 1945. Of more than 876,000 pounds examined in 1946, high lead content required the detention of about 4 percent, which reflects a marked improvement when contrasted with the detention of about 10 percent of the poundage offered for entry the previous year. Continued attention is being given to the lead content of solder, in both imported and domestic food containers.

Other seizures of food containing dangerous or nonnutritive substances included canned dried beans and peas containing stones of about the same size as the food, a definite hazard to the teeth of consumers; and raisin brandies with excessive aldehydes and fusel oil which would have been removed by the customary redistilling. A fine of $1,000 was assessed the manufacturer whose carelessness in the storage of borax near salt used for brining canned peas resulted in seizures in 1945 of canned peas contaminated with large amounts of borax.

Contaminated Sea Food

Severe poisoning, often followed by death, is caused by the eating of clams and mussels that have acquired poisonous properties through the ingestion of small plankton organisms which inhabit certain coastal waters at certain times of the year and occur sporadically in other regions. Protection of public health by controlling the taking of clams from infested waters is reputed to go back to the early California Indians, whose chief posted a watchman to warn away seekers of shellfish when the waters were red with plankton, an occurrence associated with the untimely deaths of members of the tribe. At a much later period, State officials along the Pacific coast renewed this protection by imposing restrictions on the gathering of shellfish in the waters where and during the season when they are affected.

During the summer of 1945 this toxic organism reappeared in Canadian waters on both the Pacific and Atlantic coasts. Periodic checks of the toxicity of clams and mussels from the waters off the United States were maintained by State and Federal officials, and importations from neighboring countries were examined. Forty-four lots offered for entry from Canada and 12 from Mexico were detained because of toxicity, and the Canadian health authorities canceled a number of export licenses to forestall further shipment from affected areas. Twelve seizures of frozen clams shipped by packers in the United States and Alaska were effected because of the presence of this toxin; of these, several were traced to the use of frozen clams from Iceland.

Food-Poisoning Investigations

The food-poisoning outbreaks investigated by the Food and Drug Administration or reported to it by other agencies were somewhat fewer than in previous years, but they follow the same general pattern. Again, the predominating features responsible for the majority of the outbreaks were the insanitary handling and the improper refrigeration of foods, which combine to permit contamination by toxin-producing organisms.

In 38 of the 50 outbreaks reported during the year the illnesses were characteristic of bacterial food poisoning, with the victims displaying symptoms of gastroenteritis. Over 2,700 persons were made ill in these cases, the largest of which affected 1,200 individuals, who had eaten a salad prepared from ground ham contaminated in preparation and not properly refrigerated. Staphylococcus enterotoxin continued to be the most prevalent causative agent. The foods incriminated included meat and poultry products, cream-filled pastries, jelly rolls, cheese, and canned fish. *Salmonella* food poisoning was characteristic in cases involving ice cream custard bars, beef liver, and cream pie with meringue. The beef liver case, affecting 300 persons, was traced to contamination by a "carrier." A case in which 192 persons became ill was reported as resulting from consumption of turkey contaminated with *Clostridium welchii.* Another case, resulting in 16 illnesses of which 4 were fatal, was caused by the consumption of clams dug from a polluted area and led to local legislation requiring permits for persons engaged in digging clams.

Four of the cases of bacterial food poisoning were traced to foods of interstate origin. In two, in which the victims had eaten canned fish, no portions remained of the actual food eaten, but samples collected from the same source revealed the presence of numerous leaking cans caused by the puncturing of the aluminum containers by the key furnished for use in opening; remaining portions of the lot were removed from the market by Federal seizure. The third case, in which eight persons became ill, was attributed to cheese of interstate origin. State officials embargoed the remainder of the same lot found on the market and ordered its destruction. Investigation at the factory where the cheese was processed did not disclose conditions or practices that could account for the contamination, and other products of its output were not affected. The fourth case, responsible for the illnesses of more than 50 persons in one community, involved Boston cream pie found to contain staphylococcus organisms. Investigation disclosed extremely insanitary conditions and faulty refrigeration in the bakery and objectionable practices by employees who were handling the food. In this case the Federal court permanently enjoined the bakery from further sales of pies produced under insanitary conditions and the firm began an immediate clean-up of its premises.

The 1945 report mentioned 175 illnesses traced to Colby cheese, and stated that the manufacturer admitted that he had pulled a dead mouse from the cheese vat from which the lot originated. The criminal prosecution case brought against this manufacturer was terminated in 1946 with a 6 months' jail sentence, later suspended and a 1-year probationary period substituted, and the imposition of a $500 fine.

Only two botulism cases were reported to the Administration in 1946, which is the lowest incidence in the 12 years home-canned foods have been included in the figures, and a commendable record during a period of increased canning in the home. In one of these cases, home-canned chili resulted in the death of one person and the critical illness of another. Both individuals tasted the chili before it had been heated prior to serving. Five other persons who ate the food after it was heated were not affected, which illustrates the importance of adequate heating of home-canned foods. In the second case, in which three persons developed symptoms typical of botulinus, the poisoning agent was not identified.

Five outbreaks of illness were traced to chemical contamination of foods. Illnesses of many individuals in several widely separated areas following the consumption of beverages prepared from a concentrate containing monochloracetic acid were mentioned earlier, in connection with the discussion of this poisonous chemical preservative. The other cases of chemical food poisoning, affecting only a few individuals each, were caused by accidental contamination. Investigation revealed zinc in a sirup concentrate, cadmium in food stored in a container not intended for contact with food, a high concentration of sodium hydroxide in a single bottle of carbonated beverage, and chili in which it was suspected that roach powder had been used inadvertently in the place of seasoning.

Of the remaining five cases reported, chemical poisoning was alleged in two but the information available was incomplete and the foods involved could not be obtained for examination. The other three did not involve food; two were later traced to carbon monoxide poisoning.

Salvage Operations

Flash floods which developed in May 1946 in Pennsylvania and southern New York required the joint operations of local, State, and Federal inspectors to supervise the disposition of foods, drugs, and cosmetics inundated in polluted waters. At Elmira, N. Y., and Williamsport, Harrisburg, and Sunbury, Pa., the flood arrived with so little warning that large stocks of merchandise were flooded. In many other localities where the flash floods caused serious property loss, the stocks of foods and drugs which suffered damage were small. This was true also when a flash flood burst a dam at the head of the Passaic River Valley in the summer of 1945 and some 300 business establishments in Paterson, N. J., and adjacent towns were inundated. A survey after the hurricane in Florida in September 1945 showed no serious problem in connection with damaged stocks of foods and drugs.

Supervision of salvage operations that required at least 2 months' time for an analyst, and a correspondingly high time for inspection, followed the detention of two importations, one of 6 million pounds of cocoa beans and the other of 5 million pounds of palm kernels destined for food oil. These items had become grossly contaminated with lead ore as the result of improper loading of the ship. Most of the cocoa beans and about 40 percent of the palm kernels were satisfactorily cleaned for food use and the remainder was diverted to the manufacture of nonfood products.

Food Adulterations Involving Filth and Decomposition

It is encouraging to record organized industry efforts to effect basic corrections of conditions and practices that have formerly caused tremendous losses of food through failure to protect it from contamination by rodents and insects. Under the leadership of their trade associations, several large industries have set up organizations to deal with sanitation on an industry-wide basis. The dairy industry in years past had blazed a path by setting up improvement groups with a view toward better plant sanitation and protection of raw materials.

During 1946, other industries, such as the milling, baking, canning, and confectionery groups, have employed specialists in sanitation to assist the member firms, both in establishing general concepts of sanitation and in solving particular problems that confront them. Other industries are contemplating similar steps toward an informed industry compliance with requirements essential to the proper handling of food. In addition to industry-wide groups, many companies have employed technically trained people to deal with sanitary controls within their own organizations.

Regulatory attention to filth and decomposition cannot be relaxed, however. The availability of more labor, which it was hoped would relieve some phases of the problem, has been partially offset by higher costs of production, an excuse given by some manufacturers for curtailing attention to sanitation. Unfit raw materials are still being used by too many manufacturers who consider their responsibility discharged when the factory itself is operated under sanitary conditions. It is equally important to the consumer to have his food produced in sanitary factories and to have it protected during every stage of its handling, from the farm to the table.

Many food warehouses have cleaned their premises and provided barricades against rodents and insects as the result of the Federal campaign to prevent terminal contamination of food that entered storage in sound, clean condition. Often this was forced by the owners of the food who had been oblivious to the lack of protection their property was receiving until large quantities were seized as unfit. The campaign has been augmented by the activities of local officials in some communities. In one city the health officials embargoed all contaminated stocks in a large warehouse heavily infested with rodents and issued a restraining order to prohibit acceptance of new merchandise for storage until the premises had been fumigated and measures taken to keep rodents out of the building. In another city in the same State, a warehouse used by a large flour mill was literally overrun by rats that had been driven there from the city dumps during an exceptionally heavy snowstorm and found that the warehouse offered easy access to shelter and abundant food to eat. The city officials embargoed the entire contents of the warehouse, consisting of thousands of tons of food, and seized and denatured intrastate lots. Federal seizure was effected on all lots that had moved in interstate commerce.

In the regulatory work on filth and decomposition, the inspectors make field investigations at farms, orchards, and wharves to study the condition of the raw materials that will be offered processors and to learn of any seasonal abnormalities that might affect the finished product. Attention is given at the processing plants to sanitary conditions and practices, and to the fitness of raw materials, both when they are received and at the time they are actually incorporated in the food. For example, the processor might purchase sound fruit or fish and then hold it because of a crowded processing line until it had become decomposed and unsuitable for human consumption. Processing procedures are checked with particular attention to nonacid vegetables and to other types of foods which develop abnormalities if the cooking time and temperature are inadequate. An important part of the inspectional work on filth contamination of food is performed at terminal warehouses, markets, and other places where the food is stored after shipment and must receive adequate protection.

The courts are not disposed to countenance the shipment of filthy food, insanitary factories or practices, or failure to protect sound food through storage negligence. The year 1946 saw the largest number of substantial penalties levied in the history of Federal food law enforcement. Six jail sentences and 32 fines of from $1,000 to $4,000 were imposed and 24 injunctions were granted to restrain further traffic in unfit food, either permanently or temporarily while corrections of objectionable conditions were in progress. Nine other injunction actions are awaiting court hearing. A number of the judges, before pronouncing sentences in criminal prosecution cases, inquired into the current condition of the plant, and the penalty appeared to be more severe if improvement measures had not been undertaken between the dates of citation and trial.

Actions to remove filthy and decomposed foods from the market involved nearly 70 percent of all food seizures in 1946. In number, there were 1,713 seizure actions in the fiscal year, which differs little from the 1,723 recorded for 1945. The following pages summarize the work according to classes of products receiving regulatory attention.

Cereal Products and Confectionery

Terminal contamination by rodents and insects continued to be the cause of inexcusable losses of cereal products, such as flour, corn meal, brewers grits, and popcorn. More than 8½ million pounds were seized as unfit for human food use. A large part of the seized merchandise consisted of flour, which accounted for 234 seizure actions. In most cases this flour reached the storage houses in clean condition, and there became contaminated by insects and rodents. The use of ultraviolet light to detect rodent urine stains on the flour bags facilitated the inspection of storage lots and the sorting, after seizure, of uncontaminated portions which could be released for food use. The part found to be unfit for such consumption was diverted to animal feed, but the loss of any portions represented a tragic waste during a period of worldwide shortages. To preclude other losses, the inspectors intensified their efforts during factory and warehouse inspections to warn the management of potential sources of contamination.

In a few instances charges were brought against millers for operating under insanitary conditions. In one case, terminated with a $500 fine, heavy weevil infestation was found in the mill and weevils were three deep on the sides of the truck used to haul the grain. In another case, also resulting in a $500 fine, coupled with a 5-year probationary period, rodent infestation was found in the mill and bird excreta on the grain. In this case the court stated that the sale of filthy food is a moral crime. In a third case, the court was requested to enjoin a flour and corn meal miller who persisted in shipping food prepared under insanitary conditions.

Contamination of corn products may occur while the goods are in storage, but it is also very common in the corn used for grinding. In many of the seizures effected on corn meal, rodent pellet fragments were found. In addition to 71 consignments of unfit corn meal and corn flour removed from food channels, 22 criminal prosecution actions were instituted on charges of the use of unfit corn, the operation of insanitary mills, or both.

Actions against other cereals included 62 seizures of rodent-contaminated raw popcorn; 58 seizures of unfit grains consigned for food use, including brewers grits, sausage binders, prepared mixes, and cornstarch; and the institution of 5 criminal prosecution actions against those responsible for permitting contamination of violative articles.

Pressure by Federal, State, and local authorities to effect clean-ups of insanitary macaroni, spaghetti, and noodle plants reduced the number of violative shipments removed from the market in 1946 to about 70 percent of those encountered the previous year. A number of extremely insanitary plants continued operations, however, and 12 criminal prosecutions were instituted and a new injunction request was filed. This and the two injunctions requested the previous year were all granted permanently by the courts. One macaroni manufacturer received a 3 months' jail sentence, which was suspended on condition that he remedy insanitary plant conditions immediately, that he operate in accordance with the requirements of the Food and Drug Administration, and that he not violate any other Federal, State, or local laws during a 3-year probationary period. Another case was terminated with a $2,000 fine, and a third case with one of $1,260.

Material improvement in bakery sanitation continued in 1946, but there were some notable exceptions. As has been stated, actions taken in the past have caused the industry as a whole to take steps toward correction of objectionable conditions. The several national associations, as well as some local groups, have concentrated their efforts on this problem; continued progress through self-policing may be expected.

Rapid distribution of bakery products often precludes seizures of contaminated lots and emphasis has been placed on the development of prosecution and injunction cases, of which 34 and 4, respectively, were instituted in 1946. One of the injunction requests followed a food-poisoning outbreak attributed to Boston cream pies prepared under extremely insanitary conditions, which was mentioned earlier in this report. A temporary restraining order was immediately served by the United States marshal and a check 2 hours later revealed that the bakery had ceased operations pending a clean-up and had posted a sign, "No Pies for Sale." The injunction was later made permanent.

In the cases terminated during the year, the courts have not dealt lightly with violators of sanitary requirements. Penalties included 2 jail sentences, a $4,000 fine, and 11 others of $1,000 or more. In one criminal prosecution case the judge assessed a $2,000 fine against the defendant corporation for the shipment of rodent-infested baked goods and told its president that he would entertain a motion to reduce the fine by $1,000 provided the Food and Drug Administration found that by a certain date he had cleaned his plant and was operating under sanitary conditions. Upon receipt of a favorable report from the Administration, a statement from the firm that it had spent $1,500 to clean and fumigate the plant, and assurance from its president that he would keep the plant clean, the judge reduced the fine to $200 and requested the Administration to keep him informed of sanitary conditions in the bakery.

Candy manufacture was selected as one of the first industries to be given attention when the sanitation campaign began in 1938. At that time, many plants throughout the country were failing to give adequate attention to the condition of their factories and the protection of their ingredients. Some plants engaged in such objectionable practices as the reworking of candy returned because it was unfit, and the leaving of materials on open trays overnight, to be overrun by rodents and other carriers of filth. Regulatory actions focused the attention of the industry on unsatisfactory conditions and the over-all results have been good. Most of the manufacturers who suffered seizures, prosecutions, and injunctions cleaned their plants to comply with the law and corrected objectionable conditions. Others yielded to the requirements of the law by going out of business, or, in a few cases, by discontinuing interstate shipments. While substantial progress has been made in the industry as a whole, continued regulatory attention is demanded by the backsliding of some who have relaxed vigilance after making initial corrections, and by the entry of new firms in the industry that are not yet conscious of their obligations as manufacturers of food.

Seizures of filthy candy increased from 54 in 1945 to 87 in 1946. Thirteen criminal prosecution actions and an injunction case were instituted against firms or individuals operating filthy factories, with contamination by rodents and insects the most common charge. While there were some small fines levied, heavy penalties were the rule. The maximum fine was $4,000 against a firm that was using materials contaminated with rodent excreta and reworking scrap candy that showed rodent teeth marks. The firm had been cited for operating under insanitary conditions in 1942 and at that time had made the suggested corrections to improve the sanitation of the plant. In the 1946 case, the defendant told the court that the concern did not realize that conditions were again bad until the inspector called attention to them.

Related products in the confectionery field were also given attention, especially in the course of factory inspections and warehouse surveys. Seizures were made of decomposed maple sirup, cane sugar contaminated with rodent urine, decomposed and filthy chocolate and chocolate products, and numerous other materials, many intended for use in the manufacture of confectionery and baked goods. One of the largest seizures involved two warehouse lots of chicle, valued at $100,000, which had been defiled by rodents.

The chapter on Food Violations Involving Economic Cheats mentions the jail sentence and heavy fine imposed upon the individual who attempted to profit from the sale for food purposes of cocoa residues that had been handled as a waste product. In imposing the severe penalty, the court was influenced by the extreme degree of filth the residues contained.

Dairy Products and Eggs

The big problem in the dairy industry continues to be the procurement of a suitable supply of milk or cream. Some dairy plants are operating under good sanitary conditions in the plants themselves, but are using quantities of dirty milk or dirty and decomposed cream. The end of the war with Japan brought a revival of the industry-improvement program in the entire dairy industry. Nation-wide and many State-wide meetings have been held for the express purpose of securing better raw materials. Many of these meetings were addressed by representatives of the Food and Drug Administration who had been invited to present the regulatory concept of suitable raw materials; some of their talks have been reproduced and distributed through associations and butter and cheese producers to the primary producers and centralizers who are initially responsible for remedying the unfit condition of the milk.

There is intense competition in the dairy industry for raw materials, not only between different plants in the same line of production, but also between manufacturers of different types of dairy products. For this reason, the farmer frequently has a market for his milk or cream, regardless of its condition. If one plant turns it down because sediment pads show manure residues and other evidence of filth, another plant will buy it. It is the responsibility of the dairy industry to provide itself with clean, fit materials through pressure on the farmer and intermediate dealer, who ordinarily are not interstate operators. Seizures, criminal prosecutions, and injunctions have been used to continue the campaign against the members of the dairy industry who ship products made from unfit materials, with the ultimate purpose of forcing a correction at the source.

Some of the larger companies have applied themselves diligently to this program with encouraging results. An example is one company which has rejected large quantities of dirty milk in its purchases for cheese manufacture and has followed up these rejections by sending field men to visit farmers in an effort to improve sanitary conditions on the farms that supply it with milk. In addition, it has held numerous group meetings of farmers and has used other educational means to carry the message of sanitation back to the farm. This company has met with an unusual measure of success in its educational efforts. A second example is a butter manufacturer who offers 5 cents below market price for second-grade cream to stimulate his producers into presenting him with grade 1 cream only.

The over-all picture reveals that the cream supply is materially better than it was at the time Federal creamery work was inaugurated. Further improvement can be achieved by continued regulatory pressure and the corrective efforts of the industry itself.

Eighteen injunctions were requested of the courts in 1946 to prevent the interstate shipment of cheese and butter made from dirty milk, under insanitary conditions, or both. By the end of the year the 1 injunction involving butter and 11 of those seeking to restrain filthy cheese shipments had been granted, and 4 other cheese injunctions were pending. Three of the injunctions granted resulted from the use in soft cheese of unpasteurized milk produced in a region where Brucellosis was prevalent in cattle. There is potential danger of transmitting this disease to man through the use of milk in which the disease organisms have not been destroyed. As a result of the injunctions and seizures that previously had been effected, pasteurizers were installed in cheese plants in that vicinity as rapidly as deliveries could be obtained. At the end of the fiscal year, only one manufacturer in the entire area had failed to order pasteurizing equipment. The two other dairy products injunctions requested involved powdered milk and rennet paste and extract manufactured under insanitary conditions. A permanent injunction was granted in the powdered milk case, and in the rennet case, which is still pending, there has been a marked reform of practices in the entire area where the industry is localized.

Seizures of filthy dairy products showed an increase in 1946, with 151 actions in contrast to 92 brought in the previous year. Thirty-one criminal prosecution cases were instituted, of which 18 were based on shipments of unfit cheese. Three cases were terminated with fines of $1,000 or more and several concerns were placed on probation for periods ranging from 1 to 5 years.

The principal problem in the regulatory control of eggs is the decomposition of frozen eggs as a result of improper methods of manufacture and storage. The use of unfit shell eggs, failure to separate the good from the bad in the candling process, use of dirty equipment, and delays in freezing have all contributed to violative products. One concern lost frozen eggs valued at over $100,000 as a result of such practices and was fined an additional $400. Another firm was fined $1,500 for shipments of decomposed frozen eggs. Six criminal prosecution cases and 28 seizures were instituted because of the shipment of decomposed eggs, of which a large proportion involved the frozen product. Only one case was based upon incubator rejects and it was terminated with a jail sentence of 9 months and a fine of $500 imposed upon a chronic offender.

Fruits and Vegetables

Decomposition was the most common violation encountered in unfit fruit and fruit products, and insect and maggot infestation was next. An increased number of violations resulted in all types except fresh fruits, against which actions were nominal. In most cases the decomposition and maggot infestation affecting fresh fruits occurs while the articles are on the dealers' shelves and is entirely obvious to the purchaser. For this reason, little inspectional time is devoted to this project.

Conditions in the western producing areas, where more than three-quarters of the canned fruits are packed, were found to be excellent with respect to filth and decomposition. A problem facing the industry every year is brown rot in prunes for canning and contamination with filth while they are being dried before canning. Eight seizures were effected of shipments of violative material of this type. The largest number of seizures of canned fruit processed in the East involved strained peaches prepared from decomposed and infested stock, despite their intended use in infant feeding: seven lots shipped by a single concern were seized. The 17 other seizures of violative canned fruits were scattered among several species of fruit and were the result of decomposition and orchard infestation. All of the canned fruit seized represents a very small quantity in comparison with millions of cases of sound, clean fruit canned each year.

Seizures of dried fruits increased from 80 in 1945 to 110 in 1946, largely as a result of weather conditions unfavorable for the raisin crop. Early and continued rains caught a large percentage of the sun-dried raisins only partly dried and large quantities became sandy and rapidly developed mold and began to rot. As an emergency measure, a large percentage of this material was rushed to dehydrators in order to save the crop, but some violative shipments were made. Seventy-six seizures of unfit raisins were effected; of these, 16 of the lots were contaminated with insects or rodents. In other seizures of violative dried fruits, infested and decomposed figs, prunes, dates, peaches, and apples, in the order named, and sporadic lots of dried fruits of other types were implicated. Prosecution actions were instituted against four operators of filthy drying plants and one processor who was using decomposed material.

Citrus juice canneries showed generally satisfactory sanitary conditions, but a few instances were encountered of the use of unsound fruit and nine lots from the output of four packers were seized because of decomposition and the presence of insect fragments. In only one case was the charge made that the juice had been prepared under insanitary conditions.

Increased freezing of fruits required added surveillance in this field, with particular attention to the fitness of raw materals being used. Fifteen seizures were made of frozen fruits that were moldy or fermented, and in two of these cases also infested. The most serious problem in connection with the freezing of fruits for commercial use was the tendency to divert unfit material into the preparation of frozen purees and other products wherein the decomposed character of the fruit is less apparent.

Comminuted and mixed articles prepared from unfit fruit accounted also for the seizure of canned pastes, pie fillings, fruit puree, marmalade, and mincemeat. Two criminal prosecution actions were instituted, one against a packer who was using decomposed fruit in a puree, and the other against a mincemeat manufacturer who was operating a filthy factory and shipping filthy mincemeat. The mincemeat manufacturer's case was tried before the end of the year and resulted in a fine of $1,000. He claimed a production of approximately 1½ million pounds a year in a plant the inspectors found to be heavily infested with rodents. Inspection revealed, also, the use in the mincemeat of dried apple chops that were contaminated with rodent pellets. When the case was tried in Federal court, the judge censured the defendant and pointed out that people who had stopped making mincemeat in their homes had a right to buy a clean product. He said that the defendant could not show any mitigating circumstances for such practices and that Congress had such operators in mind in passing the act. Two other $1,000 fines were assessed in 1946 against manufacturers who had used unfit materials in comminuted fruit products.

The usual surveys of vegetable canning and freezing operations were made to discover the use of unfit materials and the possibility of faulty processing. In this class of food, also, the most common violative practice was the diversion of unfit raw stock to purees, pastes, and other products wherein their use could not be detected so readily. Seizures of tomato paste and puree rose to 112, the highest number since 1942, and from the same tomato crop, seizures of canned whole tomatoes were confined to 3 shipments, although the growing season was the worst encountered in recent years. With the best of the crop going into the canning of whole tomatoes, the processors of comminuted products were confronted with a serious sorting and trimming problem which many failed to meet adequately. Surveillance was maintained over lots made from unfit stock and shipments were reported for destination examination. Criminal prosecution actions were instituted against eight firms, all for the use of decomposed materials, and three fines of $1,000 or more were imposed in terminated cases.

The producers of tomato juice seem to occupy the middle position in the procurement of sound tomatoes in seasons when adverse growing conditions limit the supply. After the best go to the canners of whole tomatoes, the juicers are supplied before the remainder goes into pastes and purees. Juice prepared from unfit tomatoes resulted in 16 seizures in 1946, which is four times the number effected the previous year.

Second in number of unfit canned vegetables encountered were canned spinach and turnip and mustard greens, which accounted for 47 seizures, with infestation by aphids and worms the most common adulteration, followed by decomposition and the presence of extraneous material, such as grass and sand. Extremely objectionable sanitary practices were the subject of attention in one canning area, because fundamentally unsound handling of the greens was resulting in contamination by man, animals, and birds, other filth that remained after inadequate washing, and decomposition not eliminated by sorting. Seizures and numerous citations have put the packers on notice. Aroused by these warnings, the packers have held numerous meetings to attempt to find some common solution to their problems and have volunteered suggestions for remedying unsatisfactory conditions that will revolutionize their methods if properly followed.

Next in number were 34 seizures of canned beans and peas that were largely sour and decomposed, and in some cases contained extraneous material, and 12 of decomposed or filthy mushrooms. Chemical decomposition caused by faulty processing was found in mushrooms, peas, beans, sauerkraut, greens, and artichokes removed from the market by seizure. Progressive spoilage, which often does not manifest itself by swells, may endanger health; products so affected must receive prompt attention.

There was little filth found in the frozen vegetable pack except occasional instances of insect infestation and souring before freezing, which resulted in eight seizures in 1946. The 26 dried vegetable seizures effected were the result of mold and infestation, the latter occurring in a large share of the cases during terminal storage.

Sea Food

The quality of frozen fish was, in general, better in 1946 than in 1945, although seizures were substantially higher as a result of increased inspectional vigilance. Decomposition accounted for nearly two-thirds of the 90 seizures effected and the remainder was found unfit largely because of parasitic infestation. With continued scarcity of meats, demand for fish was heavy and there was little opportunity to build up large freezer stocks; the quality was improved by more prompt processing before the fish went into the freezers. The plants have bettered their sanitary conditions and are installing new freezing equipment as fast as it becomes available.

The unfit fish that did get into frozen lots were the result of decomposition occurring on the vessels, lack of proper supervision, insufficient help, occasional delays in getting fish into the freezers, and the tendency of certain types of fish to decompose within a very few hours. The packing of some objectionable fish was prevented by increased inspectional coverage. The very presence of an inspector acted as a deterrent to packing fish that should have been discarded, and voluntary dumping of decomposed lots usually followed the inspector's warning to the management.

The abandonment of heavy production of trash fish, such as eelpout, which the industry tried to popularize during the war, has reduced the number of parasitized fish requiring legal action. Most of the fish seized because of parasitic cysts were tullibees from the Great Lakes area, although some rosefish from Atlantic waters were also seized on this charge. A number of lots of parasitized fish from Canada, which had been rejected at ports of entry, were subsequently found in interstate channels and seized. A criminal prosecution, terminated with a fine of $1,000, resulted from dealings in fish of this type.

The 27 canned fish seizures effected on charges of decomposition involved sardines, smoked shad, anchovies, kippered salmon, codfish cakes, and herring, in the order named, and 1 each of canned squid and salmon. No instances of the packing of decomposed tuna either in the Northwest or in southern California were noted. Efforts to improve the sanitary condition of tuna canneries were mentioned in the last report. This work has continued with success in the industry generally, although some plants still need improvement. Two prosecutions based on insanitary plant conditions were terminated in 1946 with fines of $1,500 and $500. Corrections of plant conditions in the tuna canning plants are carried over to the mackerel pack, since many of these packers process both varieties of fish.

Under the industry's own control program, salmon seizures are seldom necessary. This plan provides for reports of all lots found to contain decomposition through examination by association chemists, who also supervise sorting and destruction of cans containing unfit material. This type of control is effective in eliminating objectionable material before it enters consumer channels.

There has been a trend in the shrimp industry away from canning and toward freezing. Since much of this shrimp is handled in plants operating under the continuous inspection provision of the sea–food amendment, integrity of the raw shrimp until it reaches the first processor is assured. Delayed freezing and failure to maintain suitable refrigeration in terminal markets have resulted in some decomposition, which led to 14 seizures. Three lots of polluted crab meat were also removed from the market and a criminal prosecution case was brought against a shipper who operated his picking plant under insanitary conditions.

Nuts and Nut Products

Several years ago, remarkable progress was made in the black walnut meat industry after a regulatory campaign that led to the correction of insanitary conditions and the general adoption by the handlers of a pasteurization program. Reinvestigation of this industry in 1946 showed the reappearance of insanitary practices and the abandonment or faulty operation of pasteurization in many cases. A general seizure campaign was inaugurated and 27 shipments were seized from the output of 4 concerns. A criminal prosecution case was instituted against the firm responsible for a large percentage of the violative shipments. The relapse in this industry shows the need for continuous surveillance, even after apparently permanent corrections of illegal practices have been made.

The English walnut crop was one of the largest ever produced and the quality was generally very good. Some of the picking concerns, however, were found to be operating under insanitary conditions and then brushing the nut meats to remove evidence of rodent contamination. Eleven seizures were effected of filthy or insect-infested meats. Two firms were assessed fines for insanitary operations and a third received a suspended sentence and was placed upon probation for 2 years. Seizures of unfit pecan meats totaled 35, with fecal contamination responsible in about a quarter of the cases and decomposition and terminal infestation by insects and rodents responsible for the remainder.

Total seizures of nuts on filth charges were 146, which differs little from the actions of the previous year. Violative peanuts again exceeded a million pounds, of which more than three-quarters were shelled nuts. A large proportion of the seized nuts were sound until they became contaminated by insects, rodents, and mold during storage. It is encouraging to record, however, that fewer instances were encountered of the use of unfit peanuts in processed foods. Peanut butter seizures decreased from 39 in 1944 and 17 in 1945 to 3 in the current year.

Other Filthy and Decomposed Food Products

Improvements in the production of poultry stimulated by war needs were carried over into peacetime production and distribution. In the eastern broiler area there was no regulatory problem, although there had been material expansion. The last report described the improvements made in plant conditions and operations and in the culling of diseased birds from the flocks during the period the whole area operated under continuous Army inspection. A few scattered lots from other poultry-raising areas were seized on charges of the shipment of decomposed or diseased chickens and turkeys. A prosecution action was entered against a western producer for the shipment of frozen poultry containing diseased birds.

Spices and condimental seeds are particularly attractive to rodents and insects and require complete protection in storage. Some types are subject also to mold and insects during their production. During the 1945 drive against storage contamination, seizures of domestic lots increased from 22 to 82, and more attention to suitable storage conditions was forced upon warehouse operators. In 1946, the seized lots dropped back to 21, and some of these resulted from mold induced by excessive rains in the pepper-growing region. Seizures of unfit prepared condiments included decomposed french dressing, filthy pepper piccalilli, and decomposed catsup-style sauce and horseradish. A prosecution action was instituted against the operator of an insanitary pickle factory, and several decomposed lots of pickles were removed from the market. In terminated prosecution cases, a fine of $1,000 was assessed for filthy sesame seed and a similar amount was levied on a shipper of filthy and short-weight prepared mustard.

Several lots of beer from small breweries were found to contain visible filth, such as cigar butts, scraps of paper, and other debris, resulting from failure to wash the bottles efficiently, if at all. Seizures were effected and two criminal prosecutions were instituted.

Import Detentions

Before war conditions brought chaos into the import situation, it was customary to treat in the general discussion of filth and decomposition imported products detained because of failure to meet the sanitary provisions of the Food, Drug, and Cosmetic Act, and items that had become infested or otherwise unfit in transit. In the first postwar year, however, the import situation had not returned to normal and the picture can be presented more significantly in a separate discussion.

The quality of imports was understandably lower than before the war. The present availability of shipping space brought merchandise from lands that have for a number of years been practically isolated. Excessively long storage meanwhile resulted in deterioration and contamination by rodents and insects. For example, cassia offered for entry from the Orient has been shown to be over 6 years old and nearly 72 percent of the poundage entered was detained on account of mold, rodent excreta, insects, and manure contamination. In other instances there was grave deterioration of those controls at the source which had rendered products largely nonactionable in prewar years. A third reason for deterioration of quality in imports is the apparent eagerness of foreign shippers to rush into the American market with products prepared by persons inexperienced in meeting American standards, and often working with faulty equipment.

This is not the place for a tabulation of all of the examinations and detentions comprising the year's import control of foods, but a few high lights will indicate its volume and character, and some of the problems that confronted the wharf examiners, a force still inadequate, despite the fact that it was doubled at New York and increased at other ports where entries have shown a heavy increase.

Abuses in salvaging coffee sweepings resulted in the referral of over 900,000 pounds to the Collector of Customs for reexportation or destruction. This material had been gathered up from wharf floors and ships' holds after having been stepped on, ground by trucks, and often mixed with all the filthy debris that can accumulate at a busy dock. Notice was sent to coffee importers that where substantial quantities of coffee spill from a bag, the portion not contaminated by contact with the floor may be retrieved, but that any portions that have touched the floor, been swept from wharves or floors or holds of ships, or coffee sweepings shipped as such from foreign ports will be denied entry without recourse or cleaning. In addition to the sweepings denied entry, a total of over 4 million pounds of Brazilian coffee was detained because of excessive boring by insects and live insect infestation.

Large quantities of manioc meal, or unrefined ground cassava root, have been imported from Brazil as a substitute for cereals in the production of beer and other fermented beverages. More than 3.8 million pounds were detained because of gross contamination by insects and rodent filth. The chapter, Court Interpretations of the Food, Drug, and Cosmetic Act, outlines a decision in interpretation of the import section of the act in connection with an injunction suit to prevent the detention of a lot of wheat that the Government maintained was unfit even for animal feed.

Detentions of cocoa beans were highest in poundage, although not in percentage examined. Over 16¾ million pounds (about 9 percent of examinations) were detained, largely because of mold, but in some cases on account of insect infestation, and, in Nigerian cocoa, the presence of goat manure, a condition not previously encountered. Moldy and wormy condition caused the detention of nearly 1,850,000 pounds of sweetened and unsweetened chocolate in 10-pound bars exported from South American countries for manufacturing purposes. Nearly 25 percent of the total poundage examined was denied entry.

Imports of spices were nearly double the quantities offered for entry in 1945. As pointed out in the first paragraph of this section, many of the products had been in storage for excessive periods awaiting shipment. Disrupted shipping facilities following the cessation of hostilities required further storage at intermediate points, often under conditions that contributed to their unfitness. Careful attention was required for all spice importations, as borne out by the fact that 35 percent of the poundage offered for entry was detained, in comparison with 17 percent in 1945, and an average of about 10 or 11 in prewar years. Approximately 16½ million pounds of spices were detained for mold, contamination by rodents and insects, manure, dirt, and water damage.

Other large import detentions of filthy and decomposed foods included over 1½ million pounds of nuts, comprising 4.6 percent of the quantity examined; over 1⅓ million pounds of figs, or 27 percent of the poundage examined; and more than a million pounds of dates, or 3 percent of those examined. The date detentions were at New York, where 9 percent had been detained the previous year. This improvement may be attributed in part to the fact that the first shipments of dates reached the United States earlier than some of the commodities comprising the 1946 imports. If other imports parallel this experience, relief in many phases of the import situation may be anticipated.

Another war-born situation that was given attention under the import provisions of the act was the disposition of ships' stores comestibles. Since these food articles were reentering the country, they were detained as imports until suitable examination could be made. Many of the ships which had made their last trip and were being decommissioned had been in areas particularly subject to infestation, and their stores, if they were disposed of indiscriminately, would have contaminated sound food in storage in this country. The many hundreds of ships in this class brought back millions of pounds of foodstuffs that required examination. Recommendations were issued in each instance to the port steward and follow-up was maintained to insure proper disposal of unfit foods to prevent reentry into consumer channels. Foods condemned consisted largely of products in the cereal group, such as flour, meal, and breakfast foods, with smaller quantities of deteriorated canned foods, shell and dried eggs, dried fruits, butter, and evaporated milk. Salvage of some of these items for animal feeding purposes was possible; others were diverted to the manufacture of fertilizer.

Food Violations Involving Economic Cheats

Postwar shortages of many foods and the price situation in the food field have served as a continued incentive to the minority fringe of food manufacturers to attempt to profit illegally at the expense of the consumer. While enough of the debased products seized contained veiled hints as to the inferior nature of the contents to make label reading a profitable consumer pursuit, many were imitations labeled only with the name of the genuine article they purported to be.

Violations involving health must receive the first attention in regulatory work on foods, and next in order of importance to the welfare of the consumer is the removal from interstate channels of food that is filthy or decomposed. Economic cheats cannot be neglected, however. To do so would encourage attempts fairly localized in their early stages to develop into proportions that would undermine honest merchandise, to the detriment of both the purchaser and the industry concerned. In the aggregate, the violations described in the succeeding sections involved a very small quantity of food in comparison with the volume produced by manufacturers who take just pride in the integrity of their output, but they represent a serious imposition on the consumer which will require the concerted efforts of the buying public, responsible members of the industry, and enforcement officials to discourage.

Debased and Misbranded Foods

The continued shortage of food oils brought debasement of oils and oil-containing foods to the top of the list of seizures effected. The use of mineral oil as a substitute for food oils was discussed under Food Violations Involving Health, because of the damage such a substitution may cause, but the violations stemmed from economic incentives and both health and economic charges were included in the seizure actions. Seizures on charges of misbranding food oils with the names of more expensive oils resulted in fewer seizures, which is attributed largely to decreased shipments of all food oils. Perhaps the low point in the food oil situation was realized in the concoction of french dressing without any oil at all.

The use of saccharin as a sweetening agent was found in a number of fruit-type beverages which were removed from the market by seizure, but the distribution of such articles is largely local. Salad dressing and chow-chow pickles containing this nonnutritive ingredient were seized also in 1946. The representation that fruit-type beverages contain more fruit juice than actually is present is both an economic and a health violation, since many people depend upon articles so labeled to furnish the nutritional values of true fruit juices. Seizures effected in 1946 included a grape juice punch that had never seen a grape, and orange drink that was orange because of the coal-tar color added rather than from true orange juice.

Among the foods seized because of the use of "extenders" that thinned the product far beyond reasonable consumer expectations were crab cocktail containing only 20 percent crab meat in spiced tomato sauce; sandwich chicken consisting essentially of broth, cracked wheat, rolled oats, and a small amount of ground chicken; mushrooms in gravy, containing 8⅓ percent of sliced mushrooms, although the vignette depicted a generous quantity of whole mushrooms; and a noodle dinner with giblet and tomato sauce which had in it only 0.2 percent giblets.

Seized articles containing undeclared adulterants included grated cheese with 12 to 35 percent powdered skim milk, oysters with added water, candy with cereals substituted for nuts, maple sirup consisting of artificially colored and flavored sugar sirup, black pepper containing buckwheat and cottonseed hulls and soybean meal, horseradish with a high ground-parsnip content, buttermilk made from condensed skim milk and containing only 0.2 percent butterfat, candy coated with chocolate composed in part of pulverized ice cream cone material, and wine vinegar consisting largely of diluted distilled vinegar. Investigation at the factory where this spurious wine vinegar was concocted revealed that during the previous year the manufacturer had purchased 150 gallons of bona fide wine vinegar, which had not yet been opened, and 18,000 gallons of distilled vinegar, which was cut with an equal volume of water, artificially colored, and sold as wine vinegar. The ingredients cost the manufacturer about 10 cents a gallon and he sold it for from 90 cents to $1.65, depending upon the size of the container and the business acumen of the purchaser. The manufacturer was brought before the Federal grand jury for indictment in June 1946 and is on $1,000 bail awaiting trial at the fall term of court.

Also included in the economic cheat seizures were artificially colored cheese crackers without cheese, brandy and rum fruit cake with imitation flavors substituted for the brandy and rum, egg noodles with little or no egg, and India white poppy seed artificially colored to simulate Dutch blue worth about three times as much. One of the largest economic seizures involved 2 carloads of frozen soaked dried lima beans labeled euphoniously "Hydrated Fordhook Lima Beans"; the consignment was valued at $30,000; relabeling to show its real identity was required under court order.

A serious economic loss is experienced by purchasers of stock feeds that are misbranded as to their protein content, which largely governs the price and nutritive value of such products. Four stock feeds and a meat-scrap product were seized and 11 criminal prosecutions and an injunction were instituted for failure to meet labeled claims.

Debasement was charged in 336 food seizures and in 45 criminal prosecution cases instituted in 1946. While the penalties imposed by the courts for such violations are usually not as severe as in cases of health significance or those involving filth and decomposition, a number of substantial penalties were assessed and some of the defendants were placed on probation as a deterrent to further illegal operations; this is often more effective than a fine, which frequently could not approach illegal gains, even in instances of the maximum penalty of $1,000 a count for a first offense, and $10,000 for repeat appearances in Federal court.

The last two reports have discussed seizures of chocolate products debased with ground cocoa shells, which are generally regarded by chocolate manufacturers as waste and disposed of as fertilizer. They are not, therefore, given the protection from filth contamination that would be accorded a product intended for human consumption. The use of such wastes usually results in both economic and filth violations. In a criminal prosecution case, terminated with a 6 months' jail sentence and a fine of $2,500, it was brought out at the trial that the fertilizer dealer who had sold 1,600,000 pounds of the residues to the manufacturer had shipped them under an invoice marked "goods covered by this invoice not sold for human consumption." This dealer stated that he would no more have expected the defendant to have sold the material for food than to have sold manure for such use.

A fine of $500 and 3 years' probation were imposed upon a man who purchased correctly labeled imitation black pepper and relabeled it to deceive the purchaser into believing that the product was pure black pepper. The judge remarked that this was apparently a case of fraud and that in his opinion the defendant was criminally inclined. In another relabeling case resulting in a $500 fine, the shipper labeled an imitation orange beverage concentrate adequately, but also supplied labels to be attached to the finished beverage which represented the product very definitely as orange juice. Five different violative spices and flavors were shipped by one concern that was fined $1,000.

Violations of Food Standards

Foods for which legal standards have been established have an important place in the consumer diet and the purchaser has become accustomed to buying such items by descriptive name rather than by specifications; for the protection of the consumer, the only items entitled to bear the name of an article for which standards of identity have been issued are those complying with the standards specifications. The marketing of substandard foods in violation of the Food, Drug, and Cosmetic Act is particularly serious in a period when such commodities are difficult to procure. Seizure of foods because they are substandard does not result in permanent removal from consumer channels of articles that are in short supply. The courts permit canned foods seized because of defects that affect their quality but not their wholesomeness to be relabeled "substandard," as the law requires. While relabeling will not legalize low-fat butter and oleomargarine, these items may be reworked to remove the excess moisture which has caused the fat deficiency. Such activities to bring the articles into compliance with the standards are performed under bond and the foods are reexamined to check their legality before distribution is permitted.

The milk-fat content of butter can be controlled by the manufacturer with a reasonable degree of accuracy. Most shortages are the result of attempts to produce butter as near to the 80-percent fat minimum as possible. In view of the fact that in normal times approximately one-third of all the milk consumed in the United States reaches the consumer in the form of butter, the economic importance of this standard, which was adopted by legislative enactment of the Congress in 1923, is self-evident.

An attempt to rechristen butter to avoid both the 80-percent milk fat requirement and the OPA price ceiling was uncovered late in the fiscal year, and although most of the traffic was in the black market, two consignments were seized. The product, which contained 78 percent milk fat, was being sold under various names, such as "plastic cream," "frozen ice cream fat," and "concentrated milk fat." Salesmen were said to have approached several butter distributors with the statement that this article was made just like any other butter, but did not contain 80 percent fat and was not under butter price controls.

General improvement is reflected in the decrease in 1946 of low-fat butter seizures and criminal prosecution actions against those responsible for the violations, with a total of 65 seizures and 16 criminal prosecutions in 1946 as contrasted with 118 and 25 the previous year. One shipper was fined the maximum of $1,000 for a single, first-offense shipment of fat-deficient butter. Others have received fines as low as $50 for the same offense, although this is well below the average. In a second-offense criminal prosecution case brought against an oleomargarine manufacturer for 12 fat-deficient shipments, a fine of $3,000 was levied. Two or three seizures each were effected on low-fat cheese and oleomargarine and two shippers in each group were prosecuted.

The highest number of actions against substandard canned foods again involved canned peas which were hard and overmature. Seizures increased to 93, which is more than three times the 1945 figure. Second in number of substandard canned foods seized was fruit cocktail, with a variation in the proportions of ingredients from those prescribed in the standards being the principal violation. Seizures of pears, peaches, cherries, and apricots accounted for a total of 13; the variance from the standards was caused by the use of sirup deficient in sugar, irregular shapes, and excess pits. Other substandard canned items seized were tomatoes containing added water and tomato paste and puree low in solids.

Criminal prosecution cases were instituted against nine packers of overmature canned peas labeled without the substandard legend. In one case terminated with a $1,000 fine, the defendant, who had pleaded guilty, attempted to prove extenuating circumstances and stressed the fact that the Government had asked for a high volume of food production. The Federal judge replied: "I recognize that all firms have been laboring under exceptional difficulties during the war years, but this sort of thing must be stopped." During the hearing it had been brought out that the peas in question were so hard that they would bounce out of a No. 2 can when tossed into it. Three grocers were fined $500 each for relabeling cans of peas and pears to eliminate the substandard legends which the manufacturer had placed upon them. Seizures of jams, jellies, and preserves containing less than the 45 percent fruit called for in the standard decreased from 25 in 1945 to 3 in 1946, which may be accounted for, at least in part, by the smaller number of shipments made during the latter year. In a criminal prosecution case closed by a plea of guilty and the imposition of a $3,600 fine, the preserves in question contained only 12 to 33 percent of fruit.

Deceptive Containers and Short Measure

Despite the efforts of many manufacturers to increase the fill of their food containers, deceptively filled containers and shortages in the declared quantity of contents were again found on the market in 1946. Some of the cases investigated were caused by careless factory control, inexperienced help, and the wearing out of equipment difficult to replace, but many of them appeared to be deliberate attempts to circumvent ceiling prices. The substitution of brine or water is an old economic cheat, but deception also results when a container is too large for the contents and the excess space is either left empty or is stuffed with cardboard or nests of shredded paper, or by some other means creates the impression that the package contains more of the article than it actually does. Deceptive packaging may also lead to the false impression that a higher proportion of expensive ingredients is present than is actually the case.

Regulatory action was again instituted against a number of sauerkraut shipments containing excess brine. Although the article was packed in glass jars, the sauerkraut was so dispersed in the brine that the purchaser could not differentiate between deceptively and well-filled jars. A shipment of sliced beets was seized for the same reason. Also seized were two shipments of deceptive gift packages for the military, consisting mainly of candy and cookies packed in excessive amounts of shredded paper so that they appeared to hold substantially more food than was actually present. In addition, one of these gift boxes contained cookies which were 18.7 percent short of the weight declared on the paper cup containers. Other seizures involved boxes of candy with small pieces of candy packed on a nest of shredded paper which occupied about half the box; a spaghetti container only 45 percent full; flavoring extracts in cartons much too large for the bottles; and such other items as grated cheese, cookies, prepared mixes, and canned fruit.

Short weight was alleged in 116 seizure actions in 1946, which differs little from the record of the previous year. The largest number of short-weight actions involved butter, with confectionery, popcorn, canned shellfish, cheese products, peanut butter, and tomato products following in the order named, and a few seizures in almost every group in the food field. Five concerns attempting to profit from short weight in fresh mushrooms, which were bringing fabulous prices, were fined an average of more than $200 each. The largest fine imposed during the year for short weight was the $1,500 penalty levied on a packer of small packages of pecan meats approximately 8 percent short of the declared net weight.

Sea-Food Inspection

Diversion of the major portion of raw-shrimp landings to the fresh and frozen market, which began some 2 years ago, reduced the size of the inspected shrimp pack to 161,228 cases in 1946. This is less than half the quantity packed the previous year under the continuous Federal inspection that entitles them to bear the label, "Production supervised by the U. S. Food and Drug Administration." Twenty-seven plants operated under this service during the season. Inspection was withdrawn from one plant for the nonpayment of fees, and suspended for the remainder of the season at two others because of unsatisfactory conditions. At one, the physical condition and equipment of the factory did not permit the packing of shrimp in compliance with regulations; the firm is now planning an entirely new plant. The other suspension was necessary because the factory had allowed such insanitary conditions to develop in connection with its crab-meat operations that the running of inspected shrimp could not be permitted.

Seven oyster canneries operated under inspection in 1946, with a total pack of 38,825 cases, which is likewise a decrease from the 1945 pack. In this third year of oyster inspection, the rejection of raw material was the lowest since the service has been offered, an indication that the fishermen are learning what is required in the handling of raw oysters. Several other oyster canneries have ordered and are installing oyster washers and are undertaking other plant changes that would qualify them for operation under Federal inspection.

Actions on Drugs

Dangerous and Adulterated Drugs

There were no reports of multiple injuries caused by errors in the compounding of drugs during the fiscal year 1946. The Administration did, however, receive a number of reports of drugs which had qualities that made them potentially dangerous. Usually these reports came from the manufacturers themselves, who immediately traced and recalled all outstanding lots, but in a few cases seizures were required to remove from the market drugs that were dangerous because of faulty manufacturing controls.

Among them were digitalis tablets of nearly three times the declared potency and saccharin tablets contaminated with boric acid. A criminal prosecution action was instituted against a manufacturer who had shipped bottles labeled as vitamin B complex solution, but which contained instead an oil solution of estrogens. The type of bottle used was such that the physician could not have noted the substitution before administering the drug by intravenous injection, a procedure that would almost certainly have caused fatal results. By a fortunate chance, the inspector sampled the shipment immediately after receipt. Prompt laboratory examination revealed the true character of the drug and seizure was made. As in other cases of drug mix-ups, the substitution was accidental, but it indicates carelessness in the handling of an article that may cause irreparable damage if an error is permitted to occur.

Seizures of drugs standardized in the U. S. Pharmacopoeia or National Formulary decreased from 90 in 1945 to 36 in 1946. The proportion of seizures made because the drugs were not of proper strength or identity was 40 percent. The decrease is accounted for by the fact that less than a third as many seizures were made as in the previous year of injection drugs containing undissolved particles and of surgical dressings failing to meet USP sterility requirements. Seizures of unofficial drugs on charges of deviations from declared standards showed even a greater decrease for the year than did those of official drugs, with a drop from 143 in 1945 to 27 in 1946.

The last report mentioned the economic-type violation that had developed in the field of estrogenic hormones in 1945, with seizures of consignments shipped by 34 concerns, and numerous citations issued and criminal prosecutions instituted. Actions were taken against the output of 9 concerns in 1946 and 14 criminal actions were instituted, charging 33 individual defendants with violative shipments of estrogenic hormones. One manufacturer who was substituting diethylstilbestrol for the natural estrogenic hormones and shipping the product under counterfeit labels was fined $100 and given a jail sentence, the latter suspended with the provision that he was not to engage in the drug business in any shape or form for a year. In imposing this sentence, the judge stated that in his opinion the defendant, who had admitted that he was a salesman and not a chemist, pharmacist, or physician, was not qualified to deal in drugs, particularly the important drugs which he was handling.

Seizures of seven lots of contaminated crude drugs resulted from surveillance of drug warehouses to check on storage conditions that might permit contamination by rodents and insects. One corporation was fined $500 on charges of having shipped a filth-contaminated drug product manufactured in a filthy factory and its manager-treasurer received a suspended sentence and was placed on probation until the plant was put in condition to satisfy the Food and Drug Administration that the requirements of the law had been met.

Other criminal actions terminated in 1946 included jail sentences of 30 days, and 3 months, and fines of $1,500 and $1,900, for shipments of injection drugs that contained undissolved particles or were not sterile; a $1,200 fine for absorbent cotton that failed to meet sterility requirements, although it was represented as being of surgical quality; and a $1,000 fine imposed upon a manufacturer of subpotent pituitary preparations, inherently dangerous because physicians might fail to attain the desired physiological results in administering them to patients.

With the removal from the market of lethal abortifacient pastes, a campaign that was discussed in the last three reports, regulatory attention has turned to abuses in the field of alleged emmenagogues. While the program was started late in the fiscal year, it has already resulted in the seizure of eight preparations that are worthless if taken according to directions, and fail to bear adequate warnings of the injury that would attend increasing the dosage. Such a warning is particularly necessary in view of the tendency of women who use these preparations without medical supervision to double or treble the dose when they find that they do not achieve the desired results by following the directions on the package.

Violative Sales of Prescription Drugs

The percentage of retail drug stores that sell without prescription drugs which the label restricts to prescription use only is comparatively small. Prosecution cases were brought against 14 individuals in 1946, however, for the sale of sulfonamides, thyroid preparations, and particularly the barbiturate drugs across the counter to laymen without prescription, under circumstances where the public interest and the health of the consumer were seriously jeopardized. Some cases are still pending, but many have been terminated by pleas of guilty or nolo contendere and the imposition of penalties. One case only has been contested on the ground that the drugs were not in interstate commerce at the time of the sale and were beyond the power of the Congress to regulate. Excerpts from the decision of the district court denying the defendant's motion to dismiss the action are quoted under Court Interpretations of the Food, Drug, and Cosmetic Act.

The pharmacist who contested this case and four others who operated in the same town were prosecuted for sales of sulfathiazole tablets, largely to soldiers stationed at a nearby camp. Fines ranging from $200 to $750 were imposed, two were placed on probation for 2 years, and another completely discontinued the drug business. Two druggists in other localities received fines and jail sentences of 3 to 6 months, which were suspended during probationary periods, also for selling sulfonamide tablets without prescription.

Two injunction cases resulted from sales of dangerous drugs without prescriptions. One was against a pharmacy that had been selling sulfonamides and barbiturates to Marine Corps personnel, with a near-tragedy in the case of a corporal who had taken excessive doses of barbiturates. The other injunction case resulted from sales of penicillin troches without prescription by a chain of drug stores instructed by the firm to urge customers to purchase the penicillin product instead of cough drops.

The first case involving the question of refilling prescriptions for barbiturates without authorization by the physician resulted in fines of $200 for two partners who sold 3,000 nembutal capsules to an addict during an 18-month period on a single prescription.

Misbranded Medicines

In the early days of drug inspection it was quite simple to survey stocks of proprietary remedies in wholesale drug houses and locate numerous items bearing false therapeutic claims on the carton and bottle labels. Such surveys have recently resulted in the discovery of few violations, since this type of misbranding has been largely corrected. Those who attempt to misrepresent their products tend to use less conspicuous types of labeling, such as circulars which may be stored in separate packages until they are ultimately brought together with the medicine on the dealers' counters, or oral promotion in a modern counterpart of the old-time medicine show.

Twelve seizures were effected in 1946 of medicines actively sold by the lecture method. Some lecturers operated through "health classes" held in hotel ballrooms; others were "spielers" or "pitchmen" in chain variety stores; both ended their talks on physical well-being with the sales of their wares for diseases not listed on the label of the preparation. Inspectors attended both types of lectures, accompanied by stenographers who took shorthand notes of the representations made, and in the seizures that followed, charges were based on failure of the labeling to bear adequate directions for use for the diseases described orally. These included stomach ulcers; high and low blood pressure; kidney, liver, and stomach trouble; rheumatism and neuritis; female trouble and lost manhood; "diseases contracted in youth"; asthma and hay fever; and diseases, such as diabetes and cancer, which require immediate diagnosis and treatment by competent medical practitioners. In 32 of the 112 seizures of proprietary medicines, it was charged that the preparations failed to bear labeling as required by the act; most of these cases involved the omission of adequate directions for use and warnings against misuse.

In 105 of the seizures effected against violative proprietary remedies it was charged that the labeling, usually in the form of accompanying literature, made false and misleading therapeutic representations. Included were preparations for the treatment of serious skin disorders, rheumatism and neuritis, disorders of the digestive system, respiratory diseases, genito-urinary disorders, venereal diseases, allergy, earache, pyorrhea, foot ailments, tonics for purifying the system, and alcoholism "cures." Six were hair and scalp treatments which bore unwarranted therapeutic claims, and two were not antiseptics as claimed. Sixteen involved shipments of two so-called weight reducers which, the Government charged, were incapable of producing the results claimed. In addition, 34 of the 41 seizures of vitamins and foods for special dietary uses contained charges of false and misleading therapeutic claims of a type more fully discussed in the chapter devoted to these products.

Criminal prosecution actions on charges of misbranding were brought in 24 proprietary drug actions and in 20 involving vitamin preparations and foods for special dietary uses. Four injunction requests were filed to restrain shipments of preparations bearing false and misleading therapeutic claims.

Five jail sentences were imposed during the year for this type of violation. One for 30 days was served by an individual who, upon his release from jail, faced a 3-year probationary period. Another sentence served called for 60 days in jail. Two sentences, for 1 and 2 years, were suspended during 2- and 3-year probationary periods. The fifth was a 1-year jail sentence, coupled with a $4,000 fine, which was later reversed by the appellate court because supporting affidavits were erroneously sent to the jury room with the information. The Government requested a rehearing on this appeal. This motion was denied after the termination of the fiscal year, but the case was remanded for retrial. Six other probationary periods of from 1 to 3 years were ordered by the courts, in some cases with the imposition of sentence suspended during the probation.

Highest of the fines paid for misbranded medicines was the $4,000 assessed a "health" lecturer who was marketing 14 vitamin, mineral, and herb preparations represented in accompanying literature for a long list of serious diseases, including tubercular infections, diabetes, liver and stomach troubles, and for countless more general purposes, such as creating vitality, stimulating the memory, and developing brain power. Despite the fact that 10 medical experts testified during the trial as to the irreparable injury that might follow the use of these products for serious diseases, to the exclusion of rational treatment, the defendant conducted another series of "health" lectures immediately after the trial, while the decision of the judge was pending. These lectures embodied claims for the same serious diseases and seizure actions were promptly initiated. Other substantial fines included one for $2,000, two for $1,000, and a number for $500.

In cases tried in Federal court in 1946, the judges showed an increasing interest in the qualifications of defendants to manufacture drugs and determine their therapeutic efficacy. Two sentences were suspended on condition that the defendants discontinue the drug business. To one of these men, the court said, after he had imposed a 2-year jail sentence: "In view of your infirmity and your advanced age, I am not sending you to jail, but I am imposing a suspended jail sentence of 2 years and placing you on probation for 2 years. Stay out of the drug business and don't come back to this court again." The aged defendant had been promoting a "tea" which consisted essentially of ground alfalfa hay for the treatment of heart trouble, diabetes, kidney and bladder ailments, rheumatism, gall stones, and other serious conditions, and for such contradictory indications as high and low blood pressure and over and under weight. In the other case, also based on representations that a simple preparation would cure serious diseases, the court inquired into the defendant's qualifications for engaging in the drug business, and when he learned that he had studied neither medicine nor chemistry, the judge remarked: "I will not permit you to compound any medicine that is going to the general public. I think it is about time men who are not trained and are not qualified for that purpose should be stopped." This attitude on the part of the courts is one they could not act upon under the 1906 drug law, which put a premium on ignorance in its requirement that fraud be established before action could be taken against misrepresentations.

At the end of the fiscal year the jury was still hearing the retrial of the "cancer cure" case that had already made history during its first court contest in 1943 as the longest trial in food and drug litigation. The first trial had consumed approximately 19 weeks in court sessions and 9 days in fruitless deliberations by the jury, which was finally dismissed because it could not reach an agreement. The second trial began February 19, 1946. The case was based upon three preparations that were recommended as antitoxins and as cures for cancer, infections, and allergies. The Government's evidence to show that the drugs are worthless consisted of expert medical opinion testimony and the results of clinical and animal tests of the drugs. The defense attempted to show alleged cures effected by the products. After the close of the period covered by this report, the trial was abruptly terminated by the illness of one of the jurors, in the midst of the turbulent jury deliberations.

Regulatory attention to protect stock and poultry raisers from worthless and misbranded veterinary medicines resulted in 39 seizures and the filing of 9 criminal prosecutions. These actions represent a decrease from the 1945 figures, but are more than twice the number instituted for many years previous to that period. The Government action was upheld in a contested seizure tried before the Federal court in a western State. The case was based on false and misleading representations that the preparation would be effective to prevent and treat bloat in sheep and cattle, particularly bloat associated with the ingestion of poisonous plants on the western ranges. One corporation was fined $2,000 for shipping a misbranded veterinary medicine, and in another terminated case the judge directed the manufacturer to discontinue a so-called remedy for turkey diseases because he knew nothing about chemistry or medicine and was using only a "hit and miss" formula.

Seizures of deceptively packaged drugs in 1946 involved two cold remedies, an ointment, a veterinary remedy, and two lots of surgical dressings.

Actions on Devices

The availability of metals appears to have given new impetus to the marketing of therapeutic devices, many of which are promoted by circulars bearing exaggerated claims. Sixty-nine misbranded device shipments, the output of 13 concerns, were seized in 1946. All but the weight-reducing machines claimed efficacy in the treatment of a long list of diseases, some of the serious type that would be impossible to treat effectively if rational treatment were deferred too long. Some of the devices were infrared or ultraviolet lamps, but many of them were gadgets and contraptions selling for from several hundred dollars up to a maximum of $6,500.

Among the seized devices was a very small glass tube in a metal container about the size of a pencil, which cost the consumer approximately $300. The tube contained barium chloride and a small quantity of other substances. This device, which is supposed to be hung around the neck or placed against other parts of the anatomy, is purported to have mysterious radioactive properties represented in the accompanying literature as being valuable in the treatment of many diseases, including sinus and bronchial troubles, low red corpuscle blood count, injuries, burns, and illness in general.

Another was a vapor-bath system leased by the manufacturer to operators throughout the country whom he had "licensed." A novel feature of the seizures of this device and its accompanying drugs and literature was the inclusion in the libel of plumbing connections used between the generator in the basement and the cabinets and other devices installed on the first floor of the operators' establishments. The libels charged that the fumes resulting from heating the drugs placed in the generator and conducted through the pipes to the cabinets would supply no minerals to persons exposed to them, and would be ineffective for arthritis, diabetes, poor elimination, abscess on the lungs, continuous cough, decay of the jaw bones and sinus, blood poisoning, and numerous other ailments expressed in the accompanying literature as "hopeless conditions" and "whatever is wrong." The total installation was valued at $2,200.

The $6,500 device was intended to shake the body of the patient or massage individual parts of the body for the treatment of colds, bronchitis, asthma, neuritis, kidney disorders, lung congestion, and other serious conditions. Another exerciser depended for its efficacy on "dancing atoms," and two were oscillators and rollers sold under exaggerated claims for weight reduction, at a cost in one case of $1,840.

One device selling for $1,500 and renting for from $75 to $135 per month consisted essentially of an inverted induction coil installed in various types of second-hand cabinets. The coil produced an electric shock passed through terminal pads to the patient suffering, according to the circular, any of a long list of serious diseases.

The last report described the contested seizure of a device that embodied colored glass plates; each color purported to be efficacious in the treatment of pains in certain areas of the body, indicated on a chart the user was furnished. After the Government's seizure was upheld, the promoter was indicted by the grand jury on 12 counts and is awaiting trial at the 1946 fall term of court. A concerted effort has been made to seize outstanding lots of these devices, which are represented for such diseases as diabetes, cancer, tuberculosis, and syphilis. A total of 105 machines was seized in 1946 in 55 libel actions. This program has presented innumerable difficulties, since the devices were usually in the possession of individual users, some of whom were zealots who became hysterical when the marshal attempted to effect the seizure. Others handed theirs over to the marshal with an air of relief, and some dissatisfied users wrote to the Administration requesting that inspectors visit them to hear how they had been misled into using the machine instead of seeking competent medical treatment. One of those who protested the seizure firmly declared: "You should not take it away. It helped me. It helped my husband. It helped my mother. She died last week." Another woman gave up her machine the day after she buried her child who died of diphtheria after treatment with the device.

In some cases the courts have issued contempt orders to effect the surrender of libeled machines. One attempted seizure was refused by a district court judge who ruled that as long as an individual is satisfied, he has a right to select his own manner of treatment, whether or not he has been misled by false representations. An appeal has been recommended by the Food and Drug Administration.

Two criminal prosecution actions based on misbranded devices were instituted in 1946, one based upon infrared bulbs and the other on a slanting "health" board, both promoted by false and misleading therapeutic claims.

Twenty-six seizures were made of defective mechanical prophylactics, in contrast with 62 the previous year. Two criminal prosecution actions were instituted and one injunction was granted by the court. A fine of $2,400 was levied on a firm charged with having made shipments in 1945 of goods that had been manufactured in 1942 and contained up to 30 percent defective units. A plea of immunity because of a guaranty was denied by a decision which is quoted in part under Court Interpretations of the Food, Drug, and Cosmetic Act. This chapter also discusses a seizure contested on the grounds that the entire shipment should not have been condemned when only a portion of the articles were defective, a claim also denied by the court.

Vitamin, Mineral, and Other Products of Special Dietary Significance

Products claiming special nutritional properties again required substantial regulatory attention. They reveal the continued efforts of some operators to capitalize, at the expense of the consumer, on the present public interest and concern for adequate nutrition.

In addition to actions based upon deficiencies in vitamins or other nutritional factors, shown in table 2 under Enforcement Statistics, grossly false and misleading claims for nutritional and therapeutic value served as a basis for many seizures and prosecutions, particularly under the drug provisions of the law. Often the labeling of such products was characterized by "scare copy." Isolated excerpts from governmental and scientific publications were frequently made a part of the labeling in such a fashion as to create the false impression that common foods comprising the ordinary diet could not be relied upon to meet the nutritional requirements for vitamins and minerals. A host of symptoms similar to those experienced by many individuals at one time or another, such as fatigue, indigestion, sleeplessness, and lowered vitality, were represented as common symptoms of vitamin and mineral deficiencies in man. Recent reports of controlled experiments and other scientific studies provide additional evidence that indiscriminate additions of vitamins to the ordinary diet serve no demonstrable useful purpose.

Previous regulatory actions prompted a considerable number of operators to discontinue grossly false and misleading claims in the labeling of their preparations, but to continue to promote their products unwarrantedly by means of "health lectures," of the type discussed under Misbranded Medicines. Many of these products were essentially worthless from a nutritional as well as from a medicinal standpoint.

The increased use of mineral oil in a wide variety of foods as a substitute for ordinary vegetable oils is significant nutritionally. The details of actions involving popcorn and other foods found to contain mineral oil are discussed in the chapter, Food Adulterations Involving Health. The use of mineral oil with foods, involving as it does the interference with the assimilation of fat-soluble vitamins and certain minerals, and causing other deleterious effects, represents a potential health hazard which has called for increased regulatory attention.

The medical profession has a growing interest in protein hydrolysates as a source of amino acids. Scientific studies revealing the value of such products under certain specialized conditions of ill health prompted the appearance of a number of these preparations for lay distribution. One product offered to the general public as a source of protein, when consumed in the recommended manner, provided less than the protein content of a small piece of bread. Seizure removed this product from the market. The average protein intake of individuals in this country is substantially in excess of that considered by nutritional authorities as necessary for good health. Scientific evidence presently available indicates that little value can be expected by the ordinary person from protein hydrolysates or from other products offered specifically as a source of amino acids.

The vitamin content of 1,085 samples, involving 2,657 different determinations, was tested in the Washington laboratories. Sampling of enriched flour and bread by the field stations revealed approximately the same number of vitamin-deficient enriched products as in 1945, with 26 seizures effected. Two criminal prosecutions based upon deficiency in enriching ingredients in enriched flour were terminated in 1946 with fines of $500 and $320.

New Drugs

Among the new-drug applications submitted were some which represented the concentrated results of medical research for our armed forces. When information concerning these drugs became available, it was possible to permit the applications to become effective. In addition, increased facilities for research and production have resulted in many other worth-while additions in our weapons to combat disease. A new method of attacking the problem of establishing the safety of a drug was developed when six drug manufacturers cooperated with the Administration in a project to survey the clinical toxicity of Thiouracil in 5,745 cases. As a result, the necessary information was assembled concerning its action, so that the drug could be safely administered. Streptomycin, a new antibiotic, which shows promise in certain diseases, also has now become available.

The importance of section 505 (i) of the act was brought out when a decision had to be made by a manufacturer as to the manner in which radioactive elements, some of the products of atomic research, might be distributed for investigational purposes. The statute allows it to be shipped in interstate commerce when intended solely for investigational use by experts qualified by scientific training and experience to investigate the safety of drugs when the regulations are complied with. In this manner it has been possible to control the distribution of these articles through channels which definitely are for the protection of the public.

It has been necessary to continue the program of educating some manufacturers concerning the criteria of adequate investigations of new drugs. Progress has been made along these lines which is revealed in many of the applications submitted.

New-drug applications received in 1946 numbered 235, of which 174 actually represented new drugs and required handling. One hundred and fourteen applications became effective during the year.

Actions on Cosmetics

Six of the ten preparations seized for violation of the cosmetic provisions of the act contained nonpermitted coal-tar colors. One was an ingredient for use in creams, four were shipments of a wave set, and one was a hair dressing. Another seizure based upon danger to the user was a hair lacquer containing an injurious ingredient.

Charges involving economic violations included short weight in three preparations, of which two were also deficient in the olive oil they professed to contain. In addition to these cases, numerous cosmetics were seized for false and misleading claims in violation of the drug sections of the act.

Criminal prosecution actions were instituted against two firms and two individuals associated with one of the concerns for the use of uncertified colors in a scalp oil and a sun-tan oil. Shipments of a hair lotion masquerading under a misleading name led to another criminal action. A fourth prosecution case was terminated during the year by a fine of $1,000; it was based on shipments of coconut-oil shampoo, containing excess alkali, which had resulted in a number of injuries. The firm, which ships over a million bottles of this shampoo annually, had no control system which would permit it to determine whether one or several batches of the shampoo had caused the 18 injuries that had been reported to it before the Food and Drug Administration learned of the incident. The firm merely offered to replace the shampoo to persons making such complaints, or sent them some merchandise of small value, and did nothing to recall the offending material until the Administration insisted upon it. Thereupon, all outstainding lots were removed from consumer channels and tested, and those showing abnormal composition were destroyed.

Court Interpretations of the Food, Drug, and Cosmetic Act

When a new law is enacted, its full import cannot be measured until the courts have decided issues arising from its provisions. An unusual number of court interpretations of new provisions contained in the Food, Drug, and Cosmetic Act of 1938 were handed down in 1946. With a few exceptions, these decisions strengthen the consumer protection provided by the statute.

It is significant that most Federal courts gave more weight to the intention of Congress in enacting this law for the ultimate protection of the consuming public than to technicalities introduced by alleged violators in an effort to escape their full obligation under the law. The District Court for the Middle District of Georgia expressed this guiding principle in its decision rendered in the criminal action involving over-the-counter sales of prescription drugs:

> The court should be guided by the purposes of the act, the intention of Congress therein evidenced, and seek to make that intention effectual. * * * The court should look to the policy of the legislation as a whole, the reason for its enactment and its antecedent history and give it an effect in accordance with its design and purpose, so that its purpose may not fail. * * * Regard should also be had to the evils which called forth the statute, and a construction should be adopted which serves to correct the evil and defeat the wrong it was its purpose to frustrate.

This case was the first to test section 301 (k), the provision of the act which prohibits the doing of any act with respect to a drug, if it is done while the drug is held for sale after shipment in interstate commerce and results in such article being misbranded. In the belief that it was the intent of Congress to see to it that directions for use and warning statements, when required, afford protection to the ultimate consumer, the Food and Drug Administration had brought a number of criminal actions against druggists who had sold, without prescription, drugs which the interstate label restricted to prescription use only. This case is the only action contested on jurisdictional grounds.

The article involved was sulfathiazole tablets shipped to the pharmacist from another State in 1,000-tablet bottles legally labeled with the prescription legend. While the tablets were being held for sale in his store, the pharmacist made sales without any prescriptions and without any label except the name of the article. In response to the Government's charge that these sales constituted violations of the act, the defendant, in a motion to dismiss, attacked the provisions as being an unauthorized exercise by Congress of its powers and further contended that the acts did not constitute a crime under that section of the law. The court, in denying the motion to dismiss, covered both questions in a lengthy opinion which stated, in part:

> It is well settled that the Congressional authority under the commerce clause includes the power to regulate intrastate activities which "affect" interstate commerce or which are in the "flow" of interstate commerce. * * * That Congress in enacting section 301 (k) of the act intended to exercise its broad powers under the commerce clause, is clearly expressed in the legislative history of the act. * * * This purpose could not have been accomplished if the provision now being considered had been omitted. Its absence would have made it relatively simple, in many instances, to render nugatory the misbranding provisions of the act by simply shipping in interstate commerce properly labeled articles and misbranding them after the transportation had ended. Anticipating resort to such stratagem, whether as part of a scheme or not, Congress sought to prevent it by the enactment of subsection (k), which would preserve the integrity of labeling of an article that had been shipped in interstate commerce until it reached the consumer. * * * By the Federal Food, Drug, and Cosmetic Act, Congress has sought to prevent the use of facilities of interstate commerce in conveying to and placing before consumers adulterated and misbranded articles. That it may lawfully do this, the court believes, is no longer open to question. Keeping within Constitutional limitation of authority Congress may determine for itself the means necessary to make its purpose effective.
>
> * * * under section 301 (k) it is sufficient to show interstate shipment of the article and the doing of the prohibited act while the article was held for sale. It is apparent that Congress intended to preserve the integrity of the labeling of an article that had been shipped in interstate commerce until it reached the consumer, even though the article was no longer in interstate commerce. * * * It was strongly contended here by the defendant that the acts which are alleged to constitute the violation were not one of those particularly enumerated in the statute, viz: "Alteration, mutilation, destruction, obliteration, or removal of the whole or any part of the labeling." This argument is untenable for two reasons: First, such acts are in fact alteration or obliteration of part of the label, and second, such acts, if not one of those enumerated, is the doing of some other act, other than those enumerated, with respect to the drug.

The defendant has appealed the decision.

Many manufacturers are careful to keep the claims on the package label within the limitations of the act, but make unwarranted claims in circulars and other promotional material. In order to circumvent the provision of the law which includes accompanying literature in the definition of labeling, shipments have frequently been made of medicines and circulars in separate packages. In several decisions, beginning in 1942, the courts have defined the word "accompanying" in terms broad enough to encompass such shipments when the articles and literature are brought together at destination. Two further definitions of accompanying literature were handed down by district courts in 1946. In an opinion rendered in a criminal case, the District Court of the Southern District of California stated:

> I hold that the word "accompany" as used in the act means that when a drug and a related circular, having a common destination, come together at their destination, they are united and become one insofar as the buying public is concerned, each, in effect, accompanying the other, whether they arrived at their common destination simultaneously or otherwise.

In the other case, the booklet, a circular letter, and a combination symptom chart and order blank were sent to persons who answered a newspaper advertisement, before they purchased the medicine. In overruling the defendant's motion to dismiss or to strike certain averments in the complaint, the District Court for Western District of Missouri stated:

> The provisions of the law could not be evaded by first placing the advertising and labeling matter in the hands of a prospective purchaser in advance of the purchase. It was the Congressional purpose to prevent fraud on the public. The usual and practical method of the producer was to send the labeling and advertising matter along with the product so that both would reach the purchaser at the same time. The identical result could be reached by sending the labeling matter in advance, or even subsequently. When both of them finally reached the consumer, there was the deception that the law seeks to prevent.
>
> If the law is as contended by the defendant, then the whole purpose of the law could be defeated by placing in the hands of the consumer, through separate channels, the labeling matter and the product. Such evasions could not be permitted.

In the same decision the court made the following statement about conflict of jurisdiction because of the advertising function of the circular:

> There is no conflict of jurisdiction between the Federal Trade Commission and the court. * * * Advertising and labeling circulars may be the same and yet perform the two offices of advertising and labeling. The courts have jurisdiction over the labeling function, whereas the Federal Trade Commission would have jurisdiction at the same time over the same circular because of its advertising function.

The 1945 report mentioned the dismissal by the Southern District of New York of the Government's seizure of a bottled water on charges of misbranding. The case was appealed by the Government to the Circuit Court of Appeals for the Second Circuit on the issues of whether a prior Federal Trade Commission cease and desist order and a judgment against the Government in a seizure action brought under the 1906 Food and Drugs Act constituted *res judicata*. The appeal was heard in June 1946 and just after the close of the fiscal year the appellate court rejected the *res judicata* defense and ruled that the case must go to trial.

The circuit court based this decision on the failure of the prior court decision and the cease and desist order to cover the same issues as the instant case in the misbranding charges. In the decision under the 1906 act, after the court found that fraud was not involved, it made no finding on whether or not the statements were misleading. In the Federal Trade Commission's cease and desist order the only finding was that the use of the water alone would not have curative effects; the circuit court could not reconcile the claimants' attempt to use a finding rendered in favor of the Government for their own benefit. Later on in the decision, the court declared:

> The suggestion of the claimants that because under sec. 45 (1) of the Federal Trade Commission Act they are made subject to a penalty for violation of a cease and desist order, that remedy is exclusive, and a forfeiture proceeding under the Food, Drug, and Cosmetic Act will not lie, is unwarranted. The remedies are plainly cumulative and not exclusive.

While the issues were not identical, the district court at St. Louis had an opposite view on a *res judicata* defense made in connection with contesting the seizure of a vitamin candy alleged to be misbranded with false and misleading claims of effectiveness as a weight reducer. The court dismissed the libel after the Federal Trade Commission's order was vacated by the Circuit Court of Appeals for the Seventh Circuit for lack of evidence establishing illegal claims. The district court declared that the libel under the Food, Drug, and Cosmetic Act and the proceeding before the Federal Trade Commission are the same and that the circuit court had adjudicated the case.

An appellate court decision holding that a supplier of an optional ingredient permitted in the manufacture of a food for which a standard of identity is promulgated has no standing in a controversy as to the validity of the standard, was handed down by the United States Court of Appeals for the Second Circuit. The petitioner's grievance was the requirement of the regulation that when lecithin, which he manufactured, was used in the chocolate products, that they be labeled "emulsifier added." The court declared that the order does not "adversely affect" the petitioner; the effect upon him is too remote, since he is not prohibited from supplying lecithin to the chocolate manufacturers and they, in turn, are permitted to add the word "lecithin" to the required labeling.

Another decision concerned with the regulations promulgated by the Administrator resulted from an appeal by a cosmetic manufacturer from a district court decision that an eyebrow dye was adulterated since it contained a noncertified color and one that had not been listed for use in cosmetics. The district court held that adequate notice and opportunity to be heard had been given at the time of the coal-tar color hearing, before the permitted colors were listed in the regulations. The court further held that a party adversely affected might obtain a direct review of the regulation through the procedure established by the act. The United States Court of Appeals for the Fifth Circuit affirmed the district court's decision. Its opinion stated that regulations issued by the Administrator are not open to collateral attack, except on constitutional grounds, if they have been established in compliance with the act. On constitutional grounds, the court declared, the regulations under attack were not subject to the Fifth Amendment's due process clause.

The most definite statement thus far enunciated under the 1906 and 1938 acts concerning the seizure of an entire shipment when representative samples thereof have been found to be in violation of the act was handed down by the District Court of Minnesota in sustaining the Government libel of a lot of rubber prophylactics that contained defective articles. The Government contended that the entire shipment should be condemned, while the claimant protested the seizure of the portion of the lot which was not defective. Pertinent portions of the decision are quoted:

> The Government inspection has established that the devices tested were defective in the number indicated, and there can be no serious doubt that the strength and quality of these particular defective articles fall below that which they purported or were represented to possess. Furthermore, it seems clear that, being labeled "Prophylactics," there was misbranding within the meaning of the statute. These defective devices are not efficacious in furnishing protection from diseases.
>
> The problem presented, however, pertains to the right of the Government to condemn the entire shipment. * * * Concededly, the burden of proof rests upon the Government. * * * But it does not follow that each individual article in the shipment must be tested. Inspection and condemnation on the basis of samples tested is clearly contemplated by the act. * * * No serious question is raised in this proceeding as to the samples taken being representative. But claimant contends that the court cannot order the condemnation of good articles, and concededly some of the remaining articles are in all probability free from defects. However, in urging this contention, claimant fails to distinguish between condemnation and the confiscation or sale of goods. Condemnation only sustains the Government's position that the goods as they were composed in interstate shipment violate the provision and purpose of the Federal Food and Drug Act. After the decree, the claimant can separate the good from the defective if it posts a bond, and thereby will be able to retain the balance of the goods. * * * The court is not required or permitted to establish any formula as to what tolerance of defects should be allowed, if any, in every type of libel proceeding before it determines that the Government has sustained the burden of proof as to any particular shipment.

Another decision rendered in a case involving defective rubber prophylactics was concerned with an alleged guaranty from the manufacturer. The articles involved were received from the manufacturer in bulk and repackaged in individual containers. The court declared:

> It is fundamental that the purpose of the act is to protect the consumer. Public policy casts upon those who introduce foods, drugs and cosmetics into interstate commerce the duty of rigid inspection. They are charged with absolute responsibility for proper branding of their products. Public safety demands of them not only extreme care, but definite assurance of the quality of their products.
>
> It is the judgment of this court that no person may rely upon any guaranty unless, in introducing the product into interstate commerce, he has acted merely as a conduit through which the merchandise reaches the consumer.
>
> The protection of the exemption clause of the statute does not include within its ambit those who, in any way, handle or process the product to which the guaranty attaches, if one has been given.
>
> The guaranty can be received in good faith, within the meaning of the statute, only if the shipper passes the product on in the same form as he receives it, without repacking it or subjecting it to any new hazards of adulteration or failure which were not present when the original guaranty upon which he relies was given.

The defendant in this case has filed notice of appeal.

A decision under the import section of the act was rendered in an injunction complaint seeking to restrain the representatives of the Food and Drug Administration and Customs from refusing entry to imported wheat damaged by water in transport. The plaintiff sought to enter the wheat for use in poultry feed, but the Government refused to sanction this disposition because the use of this article might adversely affect the health of poultry.

The court pointed out that the administrative action was taken in the field of importation in which the power of Congress is exclusive and absolute, and that the statute itself deals only with the condition of the article when first offered for importation, and its admission or rejection is to be determined by the Collector of Customs on the basis of advice from the Federal Security Administrator as to whether the samples show that the article offered for import is adulterated. The court decided that section 801 of the act, like its predecessor, does not call for judicial review as it does with respect to matters relating to domestic commerce. He held that judicial review was not possible so long as the Administrator and the Secretary of the Treasury acted within the scope of their authority under the act. Since the court had found that there had been no arbitrary or capricious action by either of the respondents, and that a proper hearing to introduce testimony had been afforded the importer, he dismissed the complaint.

Government briefs were filed in May to appeal the dismissal by the District Court of Arizona of a seizure of an interstate shipment of alimentary pastes that had become contaminated by rodents while held in their original packages in the claimant's warehouse. The district court held that the goods were no longer in interstate commerce within the meaning of the Food, Drug, and Cosmetic Act. The Government's appeal was based upon the specific language of the 1906 act, which included within its jurisdiction goods in original unbroken packages after transportation in interstate commerce; the long history of uncontested enforcement of this provision; and the legislative history of the 1938 act, which indicated the intention of Congress to retain and expand the 1906 act controls. The appellate court decision adverse to the Government's contention was handed down after the close of the fiscal year. It is anticipated that a review by the Supreme Court will be asked.

Appeal to the United States Court of Appeals for the Tenth Circuit has been authorized in another seizure dismissal by the district court. In this decree the court held that testimony by medical experts who have not had clinical experience with a therapeutic device is insufficient to justify a decree of condemnation of the article. The Government, in moving for a new trial, contended that the testimony presented by the Government's medical experts was founded upon factual scientific knowledge, which should bear more weight than mere opinion evidence.

Certification Services

The Food, Drug, and Cosmetic Act, as amended, specifically provides for the predistribution examination and certification of certain products that could not be controlled adequately by the postshipment sampling procedures customarily used in enforcement of the act. Samples of each batch are submitted by the manufacturer to the Food and Drug Administration for testing, and certificates are issued on each lot that meets the specification established by regulation. All lots distributed must be from batches thus certified. Frequent factory inspections are also made to insure the effectiveness of the certification systems. The manufacturers bear the costs incident to these certification services by the payment of fees which are turned over to the United States Treasury as miscellaneous receipts.

Coal-Tar Colors

Certification of coal-tar colors used in foods, drugs, and cosmetics was provided by the act as originally passed. Certification in 1946 covered the highest number of batches and the greatest quantity in pounds represented thereby of any year since certification became mandatory. A total of 3,270,121 pounds was involved in the 4,115 batches certified. Rejections were made of 23 batches, which is less than 0.6 percent of the batches tested.

Certification to four color manufacturers was suspended by the Administrator for failure to observe the provisions of the regulations. Two of these suspensions and one effected in 1945 were lifted later, after the manufacturers had demonstrated their willingness and ability to comply with the regulations. One color manufacturer who shipped uncertified colors misbranded to indicate that they had met the required tests was fined $4,000, one of the maximum fines imposed during the year. Another was fined $1,000 and its president was put on probation for 2 years, and smaller fines were assessed against four other color shippers for dealings in violative colors.

Regulatory work to enforce the proscription of the use of uncertified colors in foods, drugs, and cosmetics resulted in seizures of a flavoring extract, a veterinary medicine, two USP drugs, and six cosmetics, and the institution of five criminal actions against concerns that were using uncertified colors in their products. One of the essential checks on imported foods, drugs, and cosmetics offered for entry is whether the coal-tar colors they use are certified, a requirement that many foreign producers are unaware of when they begin operations. All such imports containing uncertified colors are barred at the ports.

Insulin

An amendment to the act passed by Congress in 1941 provided for insulin certification to continue predistribution testing, which had been done previously by the holder of patents that were expiring. During the year, 460 samples were examined under this provision. On the basis of these tests, 144 batches of insulin, 78 of protamine zinc insulin, and 21 of globin insulin (with zinc) were certified; the remaining 217 samples were approved for use in making batches of insulin-containing drugs. Insulin certification regulations were amended to omit tests of all bulk dilutions, since experience had indicated that this control was not necessary; and the section on fees was amended to cover increased costs of the service.

Investigational projects related to insulin certification included the study of deterioration of insulin-containing drugs by repeated assays for potency of a number of samples of each of the types currently being submitted for certification; this study is to be continued with emphasis on storage temperatures. Further investigations of blood sugar methods included a trial of the new Somogyi blood sugar reagent containing sodium hydroxide and phosphates. The dithizone method for zinc was improved to shorten the time necessary for extraction of the zinc from the protein.

Penicillin

The fiscal year 1946 was the first year of certification of penicillin and penicillin-containing drugs, which was provided by the amendment of July 6, 1945. Previous predistribution control by the Food and Drug Administration had been under wartime provisions described in the last report.

Regulations promulgated for penicillin certification comprised general provisions and exemptions, and monographs setting up standards of identity, strength, quality, purity, packaging, and labeling requirements of eight products. These were sodium penicillin and calcium penicillin, penicillin in oil and wax, penicillin ointment, tablets buffered penicillin, capsules penicillin in oil, penicillin with aluminum hydroxide gel, penicillin troches, and penicillin dental cones. During the year, various amendments to the regulations were made, including the addition of monographs on penicillin with vasoconstrictor, penicillin for surface application, and tablets alum precipitated penicillin, and the deletion of the monograph on penicillin capsules in oil. No new penicillin product is accepted for certification until adequate clinical evidence is submitted to prove not only that it is safe for use, but that it is therapeutically efficacious as well.

The actual certification of penicillin samples started on September 11, 1945. From this date until June 30, 1946, a total of 3,982 lots of penicillin and penicillin-containing drugs was tested, of which 76 lots, or 1.9 percent, were refused certification. Most of the rejected lots were low in potency, although some were rejected because of toxicity, pyrogens, moisture, pH, or turbidity of solution.

The production of penicillin was more than trebled during the fiscal year. In July 1945 it aggregated 617 billion units, while in June 1946 the monthly production was greater than 2,100 billion units. This tremendous increase was due to a large extent to the development of a new strain of mold, penicillin chrysogenum, known as strain Q176. At the same time that this new strain increased the production, it produced a larger amount of penicillin K. Since penicillin K had been shown to disappear extremely rapidly from the blood, the indications were that it would not be as satisfactory clinically as penicillin G and was therefore undesirable in the commercial product. The other known types of penicillin, F, dihydro F, G, and X, appear to be satisfactory clinically. The elimination or reduction of the amount of penicillin K in commercial preparations was solved by the addition of "precursors" to the growing mold. These "precursors" are substances which contain part of the chemical structure it is desired to produce and they tend to force the mold to form more of the desirable substance, such as penicillin G, and less of the undesirable penicillin K. The penicillin appearing on the market today contains only a small percentage of penicillin K.

Approximately 25 samples of penicillin troches were purchased by inspectors checking over-the-counter sales without physicians' prescriptions. The violators were issued citations with warning and one injunction proceeding, mentioned in the drug section, was instituted. Three seizures were made of uncertified penicillin. The manufacturers recalled two lots of penicillin, one which was inadvertently labeled with the wrong potency, and the other a lot of ointment which had deteriorated.

OTHER ACTS ENFORCED

Under the Tea Inspection Act, 94,447,300 pounds of tea were examined, of which 7,466 pounds were rejected. All of this tea originated in Ceylon and India, with the exception of 6,500 pounds from Japan and Formosa, which was rejected, and 115,585 pounds from China, of which a lot of 966 pounds was rejected.

Black teas comprised the bulk of the teas entered, with over 42 million pounds of Ceylon and over 52 million pounds of India tea included. Also represented among the black teas were smaller lots of Congou and of Black Ceylon and India. Small lots of other teas entered included Ping Suey Green, Country Green, Canton Oolong, Scented Canton, Jasmine, and Lychee. While the quantity of the tea imported from China was negligible as compared with the total tea importation, there has been a gradual increase in tea from that source within the past few months which indicates that amounts approximating prewar figures may be anticipated.

Charges of misbranding under the Caustic Poison Act were brought against a cleaning substance that contained sufficient phenol to bring it within the labeling requirements of the act. After the seizure, the manufacturer relabeled the substance with the caustic poison label and antidotes. Another seizure involved a brush cleaner and sterilizer used by beauty shops; it, too, failed to bear the required poison label.

The tariff on milk imported into the United States has discouraged the entry of products requiring operations under the Import Milk Act for a number of years. The small amounts of milk imported from Canada came from sources of supply that had passed sanitary inspections and from herds that had been examined.

One criminal action was instituted against a wholesale food distributor for the interstate shipment of filled milk. The product involved was manufactured by the firm whose conviction was upheld by the Supreme Court, as reported in 1945. The product was labeled for intrastate distribution only, but the shipper disregarded the manufacturer's warning.

SCIENTIFIC INVESTIGATIONS

The Washington laboratories have several important functions in addition to the testing of samples that require specialized techniques and laboratory facilities not available at the field laboratories. They are constantly at work on methods for the detection and proof of adulteration, capable of demonstrating violations to sustain court actions. The search for new methods is continuous, in both the staff and field laboratories. New forms of adulteration are constantly being reported, for which existing methods are inadequate. There is a continuous search for objective proof of violations such as decomposition, which have in the past been supported largely by the testimony of "trained noses and palates."

Another important function of the staff laboratories is to make fundamental researches to form a groundwork for enforcement policy. These investigations encompass the evaluation of the safety and efficacy of medicines; the toxicity of ingredients used in the manufacture of foods, drugs, and cosmetics; the normal composition of all products that come within the jurisdiction of the act; the potency of drugs and vitamins; and methods of processing, packaging, preserving, and storing products under adequate controls. The data thus obtained are useful not only in the determination of regulatory policy, but as a guidance to the court in recognizing the seriousness of violations and in ruling on the responsibility of those charged with illegal operations.

There is not space in this report to detail each investigation being conducted in the Food and Drug Administration laboratories. The Bibliography lists the results of the investigations published in scientific periodicals during the year. This chapter contains only a representative sampling to indicate the scope of the studies and the diversity of the scientific problems confronting the Administration.

The scientific studies undertaken often entail work by more than one division. For example, the proposed use of thiourea as a preservative against rot and mold in citrus fruit required studies by both the pharmacologists and food chemists of the Administration. The available method to measure the concentration of thiourea in articles treated with this substance was not directly applicable to citrus fruits, but with modifications which were introduced by the food chemists the method is suitable for measuring concentrations of a very few parts per million in citrus fruits. The use of this method on an experimental lot of oranges treated with minimal concentrations of thiourea disclosed a measurable diffusion of the chemical through the peel into the juice. In studying the extent to which this contamination may constitute a consumer hazard, the pharmacologists conducted extensive laboratory experimentation which disclosed toxic effects in rats ingesting very small amounts of thiourea and serious injury or death in rats after a single feeding of the juice from the experimental lot treated as it would be in commercial practice. The shipment of a carload of treated oranges was voluntarily withdrawn by the industry.

A broad subject that has been under investigation in the food laboratories, in collaboration with food chemists in the field laboratories, is the search for indicators of decomposition in foods. Any food is a complicated chemical mixture and a test for rot is seldom so specific that there is not some interfering substance in a natural product that must be eliminated. In searching for an indicator of decomposition in apples, however, it was found that galacturonic acid occurs in sound apples in barely detectable amounts, if at all. It is stable under the conditions of apple butter manufacture, and this presumably is the case for other apple products. The micro-organisms which are responsible for the rotting of apples form enzymes which liberate galacturonic acid from the pectin in the apples. After liberation very small amounts can be measured colorimetrically by the naphthoresorcinol test. Experimental packs from sound and from rotten apples were used in these studies. Another chemical method under study makes a new approach to the use of indole as an indicator of decomposition in shellfish, with preliminary work indicating usefulness for shrimp, oysters, and clams.

The organic insecticide field is rapidly becoming more complicated for the analyst. With DDT there are only two isomers to contend with while 666 (hexachlorocyclohexane) presents four. DDD is so similar to DDT in structure that so far only one test has been found to distinguish the two. More new compounds are anticipated which will make this field even more difficult for the spray-residue analyst. Methods developed in 1946 for these substances have included one for the rapid quantitative determination of DDT in apple spray residues. Previously developed methods published during the year comprised three DDT methods, together with the results of studies on the decomposition of DDT and some of its break-down products under ultraviolet light, ordinary sunlight, weathering conditions in the orchards, and the like.

Particular emphasis is given in microanlytical studies to the avenues of contamination of foods and drugs to interpret data obtained without inspectional evidence. In several court contests in 1946, such methods substantiated the Government's charges. In one case a rot fragment method was introduced when the claimant challenged the older and well-established mold-count technique for tomato puree.

The rot fragments alleged to be present were microscopical in size because the process of manufacture had macerated the material. The objective examinations were backed by interpretive data obtained by general field studies.

In another trial, objective analysis, interpretive data, and factory evidence were used to demonstrate the presence of filth in butter. Insect fragments were found in an interstate sample of the butter and further inspections at the plant disclosed that filthy material was collecting on the screens in the strainer through which the cream was being forced. It was evident, also, that whole insects and maggots had been present in the cream, but had been broken up by the pumping and straining operations. During the trial, it was claimed that pieces of filth were commonly present in the air and could not be kept out of the cream, but the obnoxious appearance of the strainers made it obvious to any layman that the filth in the butter resulted from the use of unfit cream. For a number of years the Administration has used in the identification of manure fragments in milk a method developed by a member of one of the field laboratories. In an injunction trial against a firm charged with the use of dirty milk, this method was used to demonstrate conclusively that particles on the filter pads were manure.

Other studies during the year included the effect of commercial pulpers on rotten stock used in strawberry puree; the conditions of peppers in the field and the methods of packing; estimation of worm fragments in canned corn; filth in spices; mixtures of moldy and sound raisins; and methods of examination of blueberries. The microanalytical procedures used by the Food and Drug Administration were incorporated in the Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists, edition 6, and have been supplemented by reports under Extraneous Materials in Foods and Drugs in the February 1946 journal of that association.

Bacteriological studies of cheese were undertaken to evaluate the danger of transmission of disease-producing bacteria in cheese manufactured from raw milk. Studies on the longevity of *Salmonella typhimurium* in a sample of cheese responsible for extensive outbreaks of food poisoning, reported in 1945, revealed that the organism remained alive in the cheese 6 months. Investigation was made of the incidence of botulinus spores in a pack of frozen vegetables and on the development of botulinus toxin in the product when held under various storage conditions. Other bacteriological methods under study include tests for the detection in food products of pollution or contamination resulting from insanitary practices in food handling.

The 1945 report pointed out that "the newer, streamlined tests developed to meet the increased production of vitamin preparations and the newer types of vitamins on the market have resulted in radical improvements in vitamin testing. In the early days all of the vitamins distributed were tested by feeding laboratory animals and by careful checking of the results for from 1 to 4 weeks. The tests which make use of bacteria and yeasts require no more than 3 days, and in some cases can be run in 3 hours. As a general rule, chemical and physical tests can be made in 1 day." The newer methods, which have been adapted to some of the tests on all of the vitamins except D, are more precise as well as more rapid.

Vitamin studies in 1946 involved fundamental problems in spectrophotometric determination of vitamin A; thiochrome and yeast fermentation methods for vitamin B_1; studies on the precision and limitations of microbiological and fluorimetric methods for vitamin B_2, and the application of these methods to new products; improvements in the microbiological methods for vitamin B_6 and pantothenic acid; methods for bioassay and microbiological assay of folic acid; a new biological assay procedure for vitamin C to test the biological activity of d-isoascorbic acid and dehydro-ascorbic acid; and studies on the chemical determination of vitamin D. An innovation in vitamin testing resulted from the discovery that some of the vitamins of proper potency in the test tube were only partly available when taken by the consumer. To measure the available vitamin content of certain products, the Vitamin Division has tested a number of samples by a method employing human subjects on carefully controlled diets.

The Division of Pharmacology is continuing some of the investigations undertaken during the war, under contracts with the Office of Scientific Research and Development, among them studies of insect repellants and lousicides, the evaluation of the safety of compounds proposed to use in rodent control, and studies on antimalarial drugs.

Regulatory work by the Administration pharmacologists has involved a number of studies on improved methods of assay. Included were the relative accuracy of methods of detecting pyrogenic substances, a redesign of assay methods for estrogenic hormones which nearly doubles the number of samples that may be tested with the same facilities, and improvement in androgen assay methods.

Other pharmacological investigations have been concerned with the suitability of ingredients in use or proposed for use in foods, drugs, and cosmetics. Chronic toxicity studies have been continued on 33 substances to test their effects on animals when administered orally over an extended period. An investigation has been undertaken to determine the suitability of diacetylaminoazotoluene and related compounds as ingredients of medical ointments. Another study has been concerned with the toxicity of phenyl mercuric acetate when the vaginal mucosa is exposed to it, as it would be if it were a constituent of contraceptive jellies. The determination of the toxic effects of monochloracetic acid, a chemical discussed under Food Violations Involving Health, is being continued by systemic studies of the pharmacodynamics of this substance. An investigation of another type involves the safety for use of various synthetic rubbers, resins, and plastics in the packaging of food and drugs, and in the manufacture of various types of equipment that come into contact with such items.

Cosmetic investigations resulted largely from the reports of injuries following the use of various types of cosmetics. The items studied included permanent wave preparations, lipsticks, nail lacquers, shaving cream, and a deodorant ingredient of a sanitary napkin. Work is still in progress on a method of analysis for cosmetic creams, on intensive investigations of permanent waving preparations, and sensitization of individuals to various ingredients contained in cosmetics.

The Chemical Section of the Medical Division has continued its study of proposed methods for the determination of penicillin; a chemical procedure for the assay of penicillin has been successfully applied to practically all of the existing dosage forms. A method was developed for the determination of penicillin K to give a quantitative separation from other forms in the mixture; although too laborious for routine use, it could serve as a final check on suspect samples. Methods for the determination of penicillin G in the presence of other types of penicillin are still under investigation. Other work on chemical methods included an improvement of the determination of estrone in mixtures of estrogenic substances, and a method for the determination of estradiol in mixtures of estrogenic hormones; an investigation of methods for the analysis of pentavalent arsenicals; a study of the existing methods for the determination of ephedrine in various dosage forms; and a study of the application of methods for the determination of ergot alkaloids previously developed to the analysis of emmenagogues containing minute traces of ergot preparations.

In addition to the certification work on penicillin, the Division of Penicillin Control and Immunology is engaged in regulatory work and related scientific studies on other antibiotic drugs and on antiseptics. Drugs alleged to be of value in the treatment or prophylaxis of infectious diseases constitute a wide and far from static field, presenting a variety of new problems to be approached by laboratory investigations. These problems also call for collaboration by the Medical Division.

The testing of streptomycin under Civilian Production Administration allocation controls was mentioned under Legislation and Regulation-Making Activities. Among the laboratory studies undertaken on this substance during the 1946 fiscal year were methods of assay for the potency of streptomycin; the development of a satisfactory identity test which eliminated the possibility of streptothricin being present as an impurity; the effective ranges of streptomycin against various bacteria in vitro and in vivo, with emphasis on the "stimulating phenomenon"; the development of resistance of various kinds of bacteria to streptomycin; the development of a sterility test for streptomycin, which became a search for an agent which would inactivate streptomycin without acting as a bacteriostatic agent itself; studies of the effect of streptomycin on leucocytes; the development of tests for the presence of histamine-like substances; and the development of an in vivo method of assay.

The certification of penicillin requires continuous laboratory investigations on methods of testing and clinical and biological studies on the therapeutic efficacy of new products proposed for certification. Some of the studies undertaken at the beginning of the testing program during the war period are still in progress, such as stability tests to determine suitable expiration dates, and sterility, pyrogen, and moisture tests that are included in the specifications. As new evidence is developed which warrants modifications in these specifications, changes in the regulations are announced in the Federal Register.

Studies in 1946 on the efficacy of various penicillin preparations have included a comparison of the curative effect of penicillin G and X and streptomycin on typhoid infections in mice, and tests on rabbits and human subjects of the excretion of penicillin G and K. A method was developed to determine the approximate percentage of penicillin K in commercial samples through tests of blood levels in rabbits. Studies were made, also, of the blood levels of penicillin in saline and oil and wax in comparison with mixtures of penicillin in commercial diluents and several other proprietary vehicles.

Methods for determination of tyrothricin, and its components gramicidin and tyrocidin, are under investigation.

The work on antiseptics and fungicides has included the search for a screen test applicable to a wide variety of antiseptics, and the development of tests to determine the efficacy of fungicides, with particular reference to preparations recommended for athlete's foot.

Investigational work on veterinary remedies has included the study of coccidiosis "remedies" for poultry and anthelmintic preparations for animals, both of which have resulted in the removal of several worthless preparations from the market. A study is in progress to develop an accurate method of transmitting blackhead to susceptible turkey poults to evaluate the effectiveness of preparations recommended for the disease. An Administration veterinarian has been detailed to the University of Illinois Experiment Station to obtain factual experimental data on so-called remedies for necrotic enteritis of hogs. One controlled field test showed no benefit to the treated hogs as compared to those untreated. Further tests are in progress.

ENFORCEMENT STATISTICS

Of the field time spent in the enforcement of the Food, Drug, and Cosmetic Act in the fiscal year 1946, 85.8 percent was devoted to domestic work and 14.2 to import products. In the previous year the percentages were 88.4 and 11.6, respectively.

Food control work received 66 percent of the field time, in comparison with 56.8 in 1945. The 67,137 manufacturers, shippers, and public warehouses that handle foods at some stage in their journey from the producer to the consumer were accorded 9,715 inspections; 27,043 official and investigational samples were collected and examined.

Drugs and devices received 26 percent of the field time in 1946 and 31.6 percent in the previous year. In this group, manufacturers of interstate products number 6,440, and 1,154 factory inspections were made of 1,067 establishments; 11,030 samples were collected and examined of interstate shipments and investigational lots.

The 675 manufacturers and shippers of cosmetics received 156 factory inspections; 275 official and investigational samples of their output were collected and examined. The cosmetic project required 1.3 percent of the time in 1946, in comparison with 1.9 percent in 1945.

Vitamins and foods for special dietary uses, with 1,300 manufacturers, received 4 percent of the time of the field force, with 156 factory inspections and 970 samples collected and examined. Work in the formulation of food standards was slightly over 0.8 percent in 1946 and 1.3 percent in the previous year. The remaining field time was devoted to work too general to classify within these groups.

The increase of time devoted to food products was spread fairly evenly throughout the food projects. Dairy products and cereals and cereal products received substantially equal proportions of the time, with 10.9 and 10.8 percent, respectively. This represents an increase of 3.4 percent for dairy products; the cereal figure, which includes attention to bakeries and baked goods, is 2.1 percent higher for 1946. Next in percentage were vegetables and vegetable products, which increased from 8.4 to 9.5 percent. Time devoted to fruit and fruit products differed little for the 2 years; the 7.7 percentage in 1946 was only 0.2 higher than the 1945 figure. Beverages and beverage materials increased to 6.1 from 4.4 percent. Chocolate and sugar products were accorded 5.6 percent of the time, an increase of 1 percent over that of the previous year. Fishery products received 5.5 in the current year as contrasted to 5 for the 2 previous years. Nuts and nut products accounted for 3.4 percent in 1946 and 3 in 1945. The respective figures for flavors, spices, and condiments were 2.9 and 2.3 percent. Meat and poultry received 1.1 percent each year. The only decreases were in eggs and egg products, oils and fats, and grains and feeds, and these were only a fraction of a percent lower in each case.

Several factors must be taken into account in interpreting the records of the court cases. Often several violative samples representing shipments made to a consignee on different dates, or a variety of articles contained in a single shipment, are combined into a single libel action. Thus, 3,966 samples formed the basis for 2,835 seizures in 1946, as shown in table 2. In criminal prosecution cases, each sample usually represents a single shipment which forms one count of the action. Seizure actions are usually adjudicated during the fiscal year, with the exception of a few which are pending because of a court contest. On the other hand, many criminal prosecutions and injunctions instituted in one fiscal year are not scheduled for court hearings until the following year. Often a shipment is alleged to be in violation in more than one respect. It may be charged that a food is misbranded as to the type of ingredients it contains and also is short in weight, or that a drug bears false and misleading therapeutic claims and fails to give the purchaser the directions and warnings required for safety in administration. In the 2,835 seizure actions brought during the year, 3,265 violations were charged, and in the 350 criminal prosecution cases 462 violations were listed in the informations and indictments.

Decomposition, insect or rodent infestation, or other filth in foods was charged in 1,713 of the 2,458 food seizure actions in which 2,715 violations were charged against the output of 1,463 shippers. Other violations resulting in seizures in 1946 involved 289 charges of dangerous substances in the products, 20 of labeling with misleading health claims, 227 of violation of official standards, 336 of debasement or violation or professed standards, 23 of deceptive packaging, 116 of short measure, 40 of failure to bear mandatory labeling, and 1 of use of uncertified coal-tar colors. In 1945, seizures were based on 1,723 filthy or decomposed foods, 118 charges of dangerous ingredients, 4 of misbranding with misleading health claims, 256 of violation of official standards, 229 of debasement or failure to meet professed standards, 54 of deceptive packaging, 113 of shortage in weight or volume, 15 of uncertified coal-tar colors in foods, and 39 of failure to bear mandatory labeling.

Seizures and criminal prosecution actions resulting from violative shipments of beverages and beverage materials increased to 179 in 1946 from 130 in 1945, principally because of the use of monochloracetic acid in soft drinks. Import lots examined increased from 3,913 in 1945 to 6,859 in 1946, but the lots detained dropped from 923 to 626, which reflects the decreasing occurrence of glass fragments in the importations of alcoholic liquors.

Enforcement work on cereals and cereal products resulted in 722 seizures and prosecutions and 8 injunctions in 1946, in contrast to 713 and 7, respectively, in 1945. Import lots examined were 467 with 390 detentions in 1946, whereas 580 out of 615 were detained the previous year.

Confectionery, sugar, and chocolate products accounted for 197 actions in 1946 and 223 in 1945, with 1 injunction request each year. Import lots examined were 1,489 and 1,816 for the 2 years, with the percentage detained slightly higher in 1946. Lots detained were 464 in 1946 and 481 in 1945.

Court actions for dairy products consisted of 300 seizures and prosecutions and 18 injunction requests in 1946, and 285 and 9 in 1945. Dairy importations examined were 139 and 131 lots for the current and the previous years; rejections increased from 54 to 76 lots.

Violative fishery products leading to court actions showed an increase from 134 in 1945 to 177 in 1946, with 1 injunction request each year. Examinations of imports increased from 3,207 to 4,362 and detentions from 774 to 800.

Actions against interstate shipments of violative flavors and spices decreased from 120 in 1945 to 114 during the current year. As it was pointed out in the text of the report, imports showed a sharp increase and many of the lots offered for entry were refused because of insect and rodent contamination. Lots examined rose from 1,527 in 1945 to 2,034 in 1946, and detentions from 365 to 742.

Seizures and prosecutions based on violative fruits and fruit products were 259 in 1946, a figure that differed little from the 263 of the previous year; 1946 import lots examined were 1,593, with 395 detained, a substantial increase over the 1,227 lots examined and 277 detained in 1945. Vegetables and vegetable products seized or forming the basis of criminal actions increased to 422 in 1946 from the previous year's 302 actions. Import examinations were 1,131 for 1946 and 1,050 for 1945; detentions were 506 and 460, respectively.

Other domestic projects accounted for 36 actions based on violative eggs and egg products, 68 on grains and feeds, 26 on meats and poultry, 159 on nuts and nut products, 14 on oils and fats, and 32 on miscellaneous food products.

The 324 drug and device seizure actions shown in table 2 involved 411 charges of violations. Dangerous substitutions of ingredients accounted for 7 seizures, 230 charges were made of false and misleading therapeutic claims, 63 of failure to bear mandatory labeling, 36 of failure to meet official compendia standards, 52 of deviation from professed standards, 10 of filth and decomposition, 6 of deceptive packaging, 4 of short measure, and 3 of use of nonpermitted coal-tar colors.

In 1945, danger to health was charged in 12 seizure actions, 282 charges were made of false and misleading claims, 22 of failure to bear mandatory label statements, 25 of filth and decomposition, 90 of violation of official compendia standards, 205 of violation of professed standards, 75 of deceptive packaging, 7 of short measure, and 1 of use of a nonpermitted color.

Fines totaling $166,746 were imposed in criminal cases terminated during the year. The heaviest fines were 4 of $4,000 each. In 51 cases the fines imposed were $1,000 or more. Jail sentences were imposed by the courts in 12 criminal actions involving 14 defendants, of whom 9 actually served or are serving periods of confinement ranging from 1 day to 9 months. For 5 defendants the jail sentences were suspended and they were placed on probation. The average length of jail sentence imposed was 5 months.

Records of actions terminated in the courts were published in 2,150 notices of judgment issued during the fiscal year under the Food, Drug, and Cosmetic Act, and in 3 under the Caustic Poison Act. Food cases were recorded in 1,900 notices and drugs and devices in 250. The notices record every terminated action, but many consolidate a number of actions in the same notice when the same shipper is involved.

TABLE 1.—*Number and kind of samples collected or shipments inspected during the fiscal years 1945 and 1946*

	Foods		Vitamins		Drugs and devices		Cosmetics		Caustic poisons		Totals	
	1945	1946	1945	1946	1945	1946	1945	1946	1945	1946	1945	1946
Interstate	16, 280	15, 863	960	922	9, 871	9, 029	290	206	9	38	27, 410	26, 058
Import	17, 989	22, 664	559	270	915	2, 360	86	81	0	2	19, 549	25, 377
Total official	34, 269	38, 527	1, 519	1, 192	10, 786	11, 389	376	287	9	40	46, 959	51, 435
Investigational	14, 267	15, 061	44	61	1, 480	1, 426	85	101	2	19	15, 878	16, 668
Grand total	48, 536	53, 588	1, 563	1, 253	12, 266	12, 815	461	388	11	59	62, 837	68, 103

TABLE 2.—*Summary of interstate samples on which criminal prosecutions and seizures were based and the number of court actions instituted during the fiscal years 1945 and 1946*

	Criminal prosecutions instituted				Seizures accomplished				Injunctions requested		Total			
	Violative samples		Actions		Violative samples		Actions				Violative samples		Actions	
	1945	1946	1945	1946	1945	1946	1945	1946	1945	1946	1945	1946	1945	1946
Foods	875	836	254	250	3, 368	3, 338	2, 411	2, 458	25	29	4, 243	4, 174	2, 690	2, 737
Vitamins and foods for special dietary uses	91	92	24	22	337	76	93	41	1	0	428	168	118	63
Drugs and devices	265	199	94	74	1, 029	527	595	324	9	7	1, 294	726	698	405
Cosmetics	37	6	8	4	19	22	12	10	0	0	56	28	20	14
Caustic poisons	0	0	0	0	1	3	1	2	0	0	1	3	1	2
Total	1, 268	1, 133	380	350	4, 754	3, 966	3, 112	2, 835	35	36	6, 022	5, 099	3, 527	3, 221

TABLE 3.—*Import shipments during fiscal years 1945 and 1946*

	Inspected and refused entry		Inspected and released		Total	
	1945	1946	1945	1946	1945	1946
Foods	4,283	4,771	13,706	17,893	17,989	22,664
Vitamins and foods for special dietary uses	104	30	455	240	559	270
Drugs and devices	526	1,188	389	1,172	915	2,360
Cosmetics	42	46	44	35	86	81
Caustic poisons	0	0	0	2	0	2
Totals	4,955	6,035	14,594	19,342	19,549	25,377

BIBLIOGRAPHY

The articles listed below were written by members of the staff of the Food and Drug Administration and published in outside periodicals in the fiscal year 1946:

Ascorbic Acid in Tomatoes and Tomato Juice, 1942–1943 Seasons. J. Assoc. Official Agr. Chem. 29: 69, 1946 (a collaborative study by 27 chemists and inspectors of the Food and Drug Administration).

Beacham, L. M.: A Study of Decomposition in Canned Oysters and Clams. J. Assoc. Official Agr. Chem. 29: 89, 1946.

Carol, J., and Rotondaro, F. A.: Determination of Estrone in Oil Solutions of Estrogens. J. Am. Pharm. Assoc., Sci. Ed., 35: 176, 1946.

Chandler, V. L., Price, C. W., and Randall, W. A.: Control and Evaluation of Blood Serum Assays for Penicillin. Science 102: 355, 1945.

Chernoff, L. H.: A Portable Apparatus for Cream Sediment Testing. Am. Butter Rev. 8: 38, April 1946.

Crawford, C. W.: Administration of the Federal Food, Drug, and Cosmetic Act. Food Drug Cosmetic Law Quar. 1: 9, 1946.

Crawford, C. W.: What Can We Expect from the Food and Drug Administration? Cheese Reporter 70: 3, Nov. 2, 1945.

DeWitt, J. B., and Sullivan, M. X. (Georgetown Univ.): Spectrophotometric Procedure for Quantitative Estimation of Vitamin D. Ind. Eng. Chem., Anal. Ed., 18: 117, 1946.

Duggan, R. E.: Estimation of Chicken Manure in Egg Products From Their Uric Acid Content. J. Assoc. Official Agr. Chem. 29: 76, 1946.

Duggan, R. E., and Strasburger, L. W.: Indole in Shrimp. J. Assoc. Official Agr. Chem. 29: 177, 1946.

Dunbar, P. B.: Pertinent Philosophy in Federal Drug Control. Food Drug Cosmetic Law Quar. 1: 266, 1946.

Dunbar, P. B.: The Prescription Legend Ruling May Need Further Amendment. N. A. R. D. J. (The National Association of Retail Druggists) 67: 1880, 1945.

Eisenberg, W. V.: An Unusual Distribution of a Rust: An Aecidium on *Lippia Berlandieri.* Plant Disease Reporter 29: 618, 1945.

Evenson, O. L.: Use of Buffers in the Determination of Color by Means of Titanium Trichloride IV. J. Assoc. Official Agr. Chem. 28: 633, 1945.

Fischbach, H.: Low Pressure-Low Temperature System for Decomposition Studies in Food. J. Assoc. Official Agr. Chem. 28: 639, 1945.

Fitzhugh, O. G., Nelson, A. A., and Calvery, H. O.: The Chronic Toxicity of Quinacrine (atabrine). J. Pharmacol. Exp. Therap. 85: 207, 1945.

Fitzhugh, O. G., Knudsen, L. F., and Nelson, A. A.: The Chronic Toxicity of Sulfites. J. Pharmacol. Exp. Therap. 86: 39, 1946.

Fitzhugh, O. G., and Nelson, A. A.: Comparison of the Chronic Toxicity of Triethylene Glycol With That of Diethylene Glycol. J. Ind. Hyg. Toxicol. 28: 40, 1946.

Fitzhugh, O. G., and Nelson, A. A.: Subacute and Chronic Toxicities of Ascorbyl Palmitates. Proc. Soc. Exp. Biol. Med. 61: 195, 1946.

Grove, D. C., and Vos, B. J., Jr.: The Chemical Assay of Ergonovine in Ergot Compared with the Biological Assay. J. Am. Pharm. Assoc., Sci. Ed., 34: 256, 1945.

Harris, K. L.: Cereal Sanitation. Am. Miller and Processor 74: 41, 1946.

Harris, K. L., and O'Brien, R. E.: Tests on the Efficiency of Various Filth Recovery Procedures. I. Insect Fragments and Rodent Hairs from Alimentary Paste. J. Assoc. Official Agr. Chem. 29: 84, 1946.

Horwitz, W.: A Modified Scharer Phosphatase Test for Milk and Soft Cheeses. J. Assoc. Official Agr. Chem. 29: 129, 1946.

Hunter, A. C.: Plant Sanitation. Frozen Food Ind. and Locker Plant J. 2: 8, May 1946.

Johnke, L. D.: New Federal Regulations for Labeling of Drugs. Quar. Bull. Assoc. Food and Drug Officials of U. S. 10: 68, 1946.

Keenan, G. L., and Eisenberg, W. V.: Tables for the Microscopic Identification of N. F. VII Crystalline Substances. J. Am. Pharm. Assoc., Sci. Ed., 35: 94, 1946.

Knudsen, L. F., Smith, R. B., Vos, B. J., Jr., and McClosky, W. T.: The Biological Assay of Epinephrine. J. Pharmacol. Exp. Therap. 86: 339, 1946.

Knudsen, L. F., and Randall, W. A.: Penicillin Assay and Its Control Chart Analysis. J. Bact. 50: 187, 1945.

Knudsen, L. F.: The Use of Statistics in Biological Experimentation and Assay. J. Assoc. Official Agr. Chem. 28: 806, 1945.

Larrick, G. P.: The Evolution of a Drug-Control Program. Quar. Bull. Assoc. Food and Drug Officials of U. S. 10: 42, 1946.

Larrick, G. P.: Practical Application of the Sanitation Provisions of the Federal Food, Drug, and Cosmetic Act. Food Drug Cosmetic Law Quar. 1: 158, 1946.

Larrick, G. P.: The Why and How of Flour Inspection. Northwestern Miller 224: 4–A, Nov. 13, 1945.

Laug, E. P.: A Biological Assay Method for Determining 2,2 Bis (p-Chlorophenyl)-1,1,1 Trichloroethane (DDT). J. Pharmacol. Exp. Therap. 86: 324, 1946.

Laug, E. P.: Effect of Acetic, Monochloroacetic, Dichloroacetic and Trichloroacetic Acids in Oxygen Consumption of Mouse Liver. Proc. Soc. Exp. Biol. Med. 61: 178, 1946.

Laug, E. P.: 2,2-Bis (p-Chlorophenyl)-1,1,1-Trichloroethane (DDT) in the Tissues, Body Fluids, and Excreta of the Rabbit Following Oral Administration. J. Pharmacol. Exp. Therap. 86: 332, 1946.

Laug, E. P., and Fitzhugh, O. G.: 2,2-Bis (p-Chlorophenyl)-1,1,1-Trichloroethane (DDT) in the Tissues of the Rat Following Oral Ingestion for Periods of Six Months to Two Years. J. Pharmacol. Exp. Therap. 87: 18, 1946.

Meuron, H. J.: An Apparatus for Preparation of Butter Samples. J. Assoc. Official Agr. Chem. 29: 125, 1946.

Nelson, E. M.: Amino Acid Preparations. Food Drug Cosmetic Law Quar. 1: 178, 1946.

Newburger, S. H.: Estimation of FD&C Yellow Nos. 3 and 4 in Cottonseed and Other Vegetable Oils. J. Assoc. Official Agr. Chem. 28: 636, 1945.

Newburger, S. H., and Evenson, O. L.: Spectrophotometric Data on Certified Coal-Tar Colors. J. Assoc. Official Agr. Chem. 29: 166. 1946.

Ofner, R. R., and Calvery, H. O.: Determination of DDT (2,2-Bis (p-Chlorophenyl) 1,1,1-Trichloroethane) and Its Metabolite in Biological Materials by Use of the Schechter-Haller Method. J. Pharmacol. Exp. Therap. 85: 363, 1945.

Ostrolenk, M., and Hunter, A. C.: The Distribution of Enteric Streptococci. J. Bact. 51: 735, 1946.

Price, C. W., Nielsen, J. K., and Welch, H.: Estimation of Streptomycin in Body Fluids. Science 103: 56, 1946.

Pruitt, R. S.: What Is Wrong With the Missouri Butter and Cheese Industry? Cheese Reporter 70: 5, Feb. 22, 1946.

Putnam, L. E., and Herwick, R. P.: Privine Dependence of Two Years' Duration. J. Am. Med. Assoc. 130: 702, 1946.

Queen, W. A.: Progress in Drug Control. Quar. Bull. Assoc. Food and Drug Officials of U. S. 10: 49, 1946.

Ramsey, L. L., and Patterson, W. I.: A New Method for the Qualitative Detection and Quantitative Determination of Monochloroacetic Acid. J. Assoc. Official Agr. Chem. 29: 100, 1946.

Ramsey, L. L., and Patterson, W. I.: Separation and Identification of the Volatile Saturated Fatty Acids (C_1 to C_4). J. Assoc. Official Agr. Chem. 28: 644, 1945.

Rostenberg, A., Jr., and Welch, H.: A Study of the Types of Hypersensitivity Induced by Penicillin. Am. J. Med. Sci. 210: 158, 1945.

Sullivan, C. C.: Good Housekeeping in Food and Drug Establishments. Pests 14: 8, April 1946.

Umberger, E. J.: A Laboratory Holder for Immobilizing Experimental Rats. J. Lab. Clin. Med. 31: 369, 1946.

Van Winkle, W., Jr. (in collaboration with six physicians from industrial laboratories): The Clinical Toxicity of Thiouracil (A Survey of 5,745 Cases). J. Am. Med. Assoc. 130: 343, 1946.

Vincent, W.: A Food Official Views the Dairy Industry. J. Milk Tech. 8: 272, 1945.

Vincent, W.: Calls for Code of Ethics. Am. Butter Rev. 8: 10, June 1946.

Vincent, W.: Discussion on Dairy Products from the Public Health Standpoint. Am. Butter Rev. 7: 367, 1945.

Vincent, W.: Manufactured Dairy Products—Sanitary Aspects Viewed from Infant and Invalid Use. J. Milk Tech. 9: 40, 1946.

Vos, B. J., Jr., and Welsh, L. H.: A Note on the Bell and Krantz Modification of the Knudson-Dresbach Chemical Assay of Digitalis. J. Pharmacol. Exp. Therap. 85: 346, 1945.

Welch, H., Price, C. W., and Randall, W. A.: Increase in Fatality Rate of *E. typhosa* for White Mice by Streptomycin. J. Am. Pharm. Assoc., Sci. Ed., 35: 155, 1946.

Welch, H., Randall, W. A., and Knudsen, L. F.: Methods of Testing Antibiotic Substances and Limitations Involved. J. Am. Pharm. Assoc., Sci. Ed., 35: 102, 1946.

Welch, H., Price, C. W., and Chandler, V. L.: Prolonged Blood Concentrations After Oral Administration of Modified Penicillin. J. Am. Med. Assoc. 128: 845, 1945.

Welsh, L. H.: X-[N-(β-Acetamidoethyl)-N-methyl]-aminoazobenzene. J. Am. Chem. Soc. 68: 343, 1946.

Wichmann, H. J., Patterson, W. I., Clifford, P. A., Klein, A. K., and Claborn, H. V.: Decomposition and Volatility of DDT and Some of Its Derivatives. J. Assoc. Official Agr. Chem. 29: 218, 1946.

Wichmann, H. J., Patterson, W. I., Clifford, P. A., Klein, A. K., and Claborn, H. V.: Determination of DDT as Spray Residue on Fresh Fruit. Three Independent Methods. J. Assoc. Official Agr. Chem. 29: 188, 1946.

Willis, D. P.: Preventing Economic Adulteration of Food. Food Drug Cosmetic Law Quar. 1: 9, 1946.

Wilson, J. B.: Persistence of Monochloracetic Acid in Wine. J. Assoc. Official Agr. Chem. 28: 627, 1945.

Woodard, G., Ofner, R. R., and Montgomery, C. M.: Accumulation of DDT in the Body Fat and Its Appearance in the Milk of Dogs. Science 102: 177, 1945.

Section Two

OFFICE OF EDUCATION

INTRODUCTION

This report is the first to be made under the plan set forth 2 years ago "to improve the services of the United States Office of Education."

During the 1946 fiscal year the eight[1] divisions that were contemplated in that plan were organized and each has been functioning for a part of the year at least. It is therefore a privilege to present the following division reports showing the initial services and activities as summarized by the respective division heads.

Appreciation is expressed for the continuing helpful cooperation and interest of the many educational and lay groups, as well as other Government agencies, that assisted in the development of "a plan of organization to improve the services of the Office to American education."

The progress achieved during the initial year of the new organization of the Office has seemed to me to lay the foundation for increasingly effective services to American education in the years ahead.

As a quick glimpse of the far-reaching challenges for the coming years, the following statements related to each new division are set forth.

Elementary Education

The elementary program is America's greatest undertaking in democratic education. It involves more than 180,000 schools with an enrollment of 20,000,000 children who are taught by 600,000 teachers. These schools require the expenditure of more than $1,500,000,000 annually. The elementary school reaches virtually all of the vast number of children within the legal and compulsory school ages. For many of these, education will terminate when they finish their grade school courses.

It is during the elementary school experiences that foundations of knowledge, skills, attitudes, and appreciations are established.

---

[1] In addition there was established a Division of Surplus Property Utilization, a temporary division.

Habits of work are formulated, and skill in social adjustments begin during these formative years. The effectiveness of this foundation profoundly influences the extent to which children come to realize the ultimate goal of effective citizenship, the maximum individual competence and a full realization of their potentialities.

Secondary Education

The people of the United States desire broad educational opportunities for all youth. It is increasingly evident that they regard a secondary-school education as the minimum opportunity for all. With less, but a steadily growing, understanding they recognize the wide variability in abilities, capacities, interests, and needs of youth and properly expect that the secondary-school program shall be effectively designed to serve individual students accordingly. Moreover, there is a growing conviction of the paramount importance of those learnings and experiences which in a democratic society all must have in common. To develop a citizenry which is competent in the skills of the democratic culture and procedures, with common ideals and a dynamic faith in the American way, is the overriding assignment which the American people have given to the secondary school.

Vocational Education

To justify membership in American economic society, every American citizen must perform some work or render some service. Education for purposeful work is recognized by Congress as an objective of national concern in the form of the national vocational education acts.

It is now clearly evident that readjustments following World War II are bringing about such vast changes in the occupational life of our people that vocational education programs for youth and adults must be reoriented toward new frontiers of service.

Programs of vocational education in the States have been developed to serve the occupational fields of agriculture, business, trades and industries, and homemaking. They are supplemented by programs of occupational information and guidance. It is the function of the Vocational Division of the Office of Education to serve these State programs.

Higher Education

In scope and extent, higher education is one of the greatest public activities in our country. The 1,700 colleges and universities in the United States are engaged each year in the preparation of two-thirds of a million students for a score of professions; of three-fourths of a million undergraduate students studying the arts and sciences; and of 55,000 advanced students studying in graduate work for leadership in teaching, in research, in industry, and in government. More than 110,000 teachers are engaged in giving instruction to these students. Higher education institutions spend more than a half billion dollars annually, operate physical properties valued at nearly 3 billion dollars, and manage endowment funds exceeding 1⅔ billion dollars.

Higher education is on the threshold of a tremendous expansion. The outstanding educational development of the past 25 years has been the expansion of the secondary-school program to its present status. It is conceivable that the next 25 years will bring a comparable expansion to the field of higher education. Among factors which will contribute to this expansion are the increased numbers of secondary-school graduates who are applying for admission to higher institutions; the increased demands of business, industry, and agriculture for individuals with college training; the increased need of our country for professional people; the broadening of the base of higher education through the junior college; and the influence of the provision of a college education for hundreds of thousands of young people through the Servicemen's Readjustment Act of 1944.

Central Services

The Division of Central Services consists of four sections: (1) Research and Statistical Service, (2) Information and Publications, (3) Office of Education Library, and (4) Administrative Management and Services. The four service sections perform functions which facilitate the operations of the other divisions within the Office of Education.

The grouping of these four sections into a single division makes it possible to unify and coordinate the administrative and professional services involved in their relationships to the other divisions and sections of the Office. In addition to providing the necessary services within the Office, the Research and Statistical Service, the Information and Publications Service, and the Library render significant services to their corresponding professional areas in education in the States and in institutions.

International Educational Relations

Through the years educational leadership in the United States has constantly made use of the basic research and the best administrative and instructional practices found in professional education in other countries. The patterns of university graduate training, preschool and primary education, and manual training, developed in England and in the continental countries, have been influences in United States education in more or less measure. Conversely in recent years the United States secondary school and its goal of a nonselective education for all have influenced the programs of other countries. From the creation of the Office of Education, studies of foreign educational systems have been carried on. In 1917, a separate division for this purpose was established. The Division of International Educational Relations now carries forward the work of the former Division of Comparative Education.

Changed conditions have brought enlarged functions to the division. Splendid growth in effectiveness of United States technical and professional education, coupled with the devastation and debilitation wrought upon these programs in other countries by two wars within a quarter of a century, have made the educational institutions in the United States a mecca for foreign students.

The need for assistance in the rehabilitation of the educational systems of the devastated countries has strongly challenged educational leaders in the United States. Furthermore, the desirability of using the best educational thought and leadership in reorienting the educational systems of Germany and Japan has evoked a serious response. At a time, therefore, when the United States is dedicated to the making of a strong contribution to peace and understanding among peoples, the Division of International Educational Relations is trying to facilitate worth-while contributing relationships between United States education and education in other countries. The strategic position which education occupies in all countries cannot but act to enlarge these relationships to the inculcation of a more effective understanding among peoples.

Auxiliary Services

The Division of Auxiliary Services groups together six sections representing various functions and areas of educational service. These sections are: (1) Service to libraries; (2) administration of school and college health services; (3) school-community recreation; (4) problems of school lunchroom management; (5) educational uses of radio; (6) visual aids to education.

These sections are mutually related by the fact that they are regarded by educators as specialized auxiliary services to the administrative and professional programs in school systems and higher institutions. The work of each of these sections cuts across and involves the area of interest of other divisions and sections of the Office and requires, therefore, careful coordination with the work of the other divisions. Through the organization of the services of the specialists in these auxiliary areas into the six sections of the Division of Auxiliary Services rather than through assignment to the several divisions, greater economy and efficiency are attained and duplication of staff and services avoided.

School Administration

Effective national educational leadership and support, such as was demonstrated during the war emergency, must be characteristic of the continuing and increasing national concern for the total educational enterprise in peacetime years henceforth.

No system or program of education is likely to advance far beyond the vision, imaginative leadership, the genius for organization, or the resources of technical skill and knowledge which its principal effective and supervisory leadership can bring to bear upon its administration. The future of education in America can be evaluated in terms of the quality of leadership in educational administration in the States and their local subdivisions throughout the country.

The unique and challenging function of the Division of School Administration is to make available an abundance of technical leadership resources which can be most effectively provided at the national level in order to insure rapid improvement in the quality of educational administration at all levels and thus to contribute to national strength, security, and prosperity.

The division reports follow.

JOHN W. STUDEBAKER
U. S. Commissioner of Education

ELEMENTARY EDUCATION

The Division of Elementary Education is designed to serve in four major areas: Organization and supervision; instructional services; exceptional children and youth; teacher education. In all of these, active work has been carried on, even though the organization of the division and the appointment of personnel, as ultimately planned, have not yet been completed.

In reporting and interpreting educational progress in these areas, as well as in giving advisory service for the development and improvement of school programs, the division's staff members have been concerned with both urban and rural schools; with children who are normal in their development and those who are exceptional in their rates of learning or who are handicapped by physical, mental, or emotional difficulties; with children varying widely in age, from the 2- or 3-year-old in nursery school or kindergarten to the 12- or 14-year-old who is ready for high school; and with parents, whose cooperation is increasingly recognized as essential to the best growth of their children in school. The magnitude of the problems involved is apparent when one considers that there are some 20,000,000 children in the elementary schools of the United States, each of whom must be treated as an individual and given an opportunity to grow in terms of his abilities.

The professional staff of the Division of Elementary Education available to work on such problems included, in addition to the Director, the following persons: (1) a consultant on educational problems, who served for a short time as chief of the section on organization and supervision, but whose major service was in relation to postwar planning programs, school social work or visiting teacher programs, associations of voluntary nature interested in promoting educational services, and other matters as they required attention; (2) one specialist on nursery-kindergarten-primary education; (3) one specialist for upper grades; (4) one specialist on extended school services; (5) one specialist in the education of exceptional children; and (6) one specialist for science and aviation (from March to June 1946).

Consultative Services in States and Communities

The field services rendered upon request by members of the division were limited in accordance with travel funds available. Yet, with the financial cooperation of some of the agencies requesting services, it was possible to extend activities from Florida to California, up to New England, and to the North Central region. They involved work with State education departments, teacher-education institutions, local school systems, and lay organizations interested in the schools.

The specialist in nursery-kindergarten-primary education consulted with State educational leaders in Maryland, New Jersey, Tennessee, and other States on State plans for the extension of schools for children under 6 and on legislative matters relating to this problem.

The specialist for upper grades was a consultant in conferences on curriculum and on supervision sponsored by State education departments in Michigan and West Virginia, and participated as discussion leader, resource person, and speaker at conferences sponsored by teacher-education institutions in Georgia, Indiana, and Illinois. Requests for services of these types on all grade levels are constantly increasing and are an indication of the importance attached to the early years of a child's education.

The specialist for science and aviation (a newly established position) visited State education departments in Georgia, North Carolina, and South Carolina to assist in laying plans for the improvement of instruction and curriculum making in elementary school science. He also participated in a workshop for elementary teachers in Kentucky and held conferences with administrators and teachers in local school systems in Maryland, Delaware, and Pennsylvania. Teachers throughout the country feel the lack of background in science to teach children of elementary school age and are unfamiliar with the method of instruction in science at this level. The most apparent problems in this field are those concerned with the preparation of instructional materials and with the pre-service and in-service training of elementary teachers. It will be one of the major concerns of the specialist for science to give consultative service in relation to these problems.

Extended school services originated just before and during the war, when the need of before- and after-school guidance for children of employed mothers became a matter of major importance. The program has proved its worth to such an extent that, when the end of the war came and Federal funds for this purpose were withdrawn, approximately three-fourths of the States continued their services in one form or another. Six States employed staffs to supervise the programs; four States made appropriations to finance child care centers; and legislation was passed in a number of States authorizing local boards of education to establish kindergartens, nursery schools, and school-age centers, in some cases permission being given to use public school funds for this purpose. Workshops on extended school services, with sections on parent education, were held in teacher-education institutions, and in two of these—namely, at the University of Tennessee and at Ohio University—the Office specialist in this field gave intensive assistance. The shortage of trained personnel is an ever-present problem, especially as colleges and universities are organizing new services for the children of veterans in attendance upon college courses.

Services for exceptional children and youth have demanded unprecedented attention since the conclusion of World War II. Never before has there been such obvious and widespread interest in the establishment of adequate facilities for handicapped children on a State-wide basis as well as in local school systems. The specialist in this field, who serves on both elementary and secondary levels, considered legislative and organizational problems with interested lay groups and with official educational agencies in Florida, California and Missouri. Increasingly emphasis is being placed upon the fact that the education of exceptional children cannot be limited to any one level of the school system. It must begin early and go with the child through his adolescent years until he has achieved optimum adjustment educationally, socially, and vocationally.

The division has been represented on policy-making and survey committees, notably the Southern States Work Conference and the Policies Committee planning a self-survey of George Peabody College for Teachers. It was represented at meetings of the State education association in Minnesota, the State Congress of Parents and Teachers in Connecticut, at an Institute for Family and Community Living at Vassar College, at a conference on reading at the University of Pittsburgh, at a workshop of the Virginia Elementary School Principals' Study Conference, and numerous other State meetings.

Services Through Working Conferences

Several important conferences were sponsored or planned by the division which have a close relation and in many cases contribute to the effectiveness of the field services rendered. A major project has been the further development of the program of the Association of State Directors and Supervisors of Elementary Education. Two meetings of representatives of this group were held—one in St. Louis, the other in Washington. At the latter basic principles of elementary-school supervision were enunciated and plans for study through committee groups were outlined. This association carries on a continuing program, and it is one of the vital forces for the improvement of elementary education in the States. Six committees of the organization are now at work, studying the following problems: (1) the characteristics of a good elementary school with regard to staff, grades included, size, program, organization, and criteria for evaluation;

(2) the coordination of school and community services for a 12-month developmental program for elementary-school children; (3) programs for children below 6 years of age; (4) techniques for the stimulation of curriculum development throughout a State, with fruitful participation by teachers, parents, other lay groups, and resource persons; (5) programs for the continuous professional education of teachers; (6) school housing and facilities for a desirable educational program.

A member of the division made plans with representatives of the Safety Research Institute and the National Fire Protection Association for a working conference in the Office designed to result in a curriculum guide for fire prevention in elementary schools. The resulting publication entitled, "A Curriculum Guide to Fire Safety," is now available.

A conference of visiting teachers and school social workers held in 1945 was followed up by the division. Its findings contributed materially to the establishment of policies for this important phase of educational service and were presented in an Office of Education leaflet under the title "Visiting Teacher Services: Report of a Conference."

Cooperation With Other Federal Agencies

The division has worked on a number of joint projects with staff members of other Federal agencies. The results have been (*a*) a growing coordination of Federal-State policies and programs relating to services for children, and (*b*) a strengthening of the services of the several agencies as they operate in the States and communities.

Staff members have consulted with the Federal Public Housing Authority on planning for the conversion of surplus buildings into public schools and for their equipment as schools. They have cooperated with the War Assets Administration in sending out announcements of equipment and buildings for nursery and kindergarten education available to institutions enrolling veterans for a continuation of their education. They have prepared material for the Attorney General's Conference on Juvenile Delinquency and participated in the panel discussions preparatory to the conference. They have cooperated with UNRRA on problems of the occupied countries. They have worked with the Children's Bureau in relation to the National Commission on Children in Wartime, problems of school social work, problems of cerebral palsied children, school adjustments for slow-learning adolescents seeking to leave school to go to work, and on an inter-agency committee on youth employment and education. The work of this last named committee resulted in a publication (issued by the Children's Bureau) entitled "Your Community and Its Young People."

The Director of the division was a member of the President's Highway Safety Conference and, as a member of the education subcommittee, helped to prepare a handbook on traffic safety education to be presented to the conference.

Cooperation With Voluntary Professional and Public Service Organizations

Members of the staff have likewise worked in close association with voluntary professional and public service agencies of national or regional scope. The Director of the division is president of the Association for Supervision and Curriculum Development. A staff member is secretary of the Association of State Directors and Supervisors of Elementary Education. Another is a vice president of the American Association on Mental Deficiency and the national chairman of the Committee on the Exceptional Child of the National Congress of Parents and Teachers.

They all have served on various committees or have otherwise given consultative service to many organizations well known for their constructive services for children, including the following: Association for Childhood Education, National Association for Nursery Education, American Association of University Women, Child Welfare League of America, Women's Joint Congressional Committee, General Federation of Women's Clubs, American Association of School Social Workers, National Council of Teachers of English, National Society for the Study of Education, National Education Association, Educational Policies Commission, National Society for Crippled Children and Adults, Inc., International Council for Exceptional Children, American Camping Association, Girl Scouts of America, National Fire Protection Association, American Automobile Association, National Planning Association, farm organizations, and labor organizations. In view of the wide dissemination which these agencies can give to professional findings and in view of their influence upon public opinion, the Office of Education is enabled greatly to strengthen its services to people at large.

Consultation on International and Intercultural Problems

At the request of the Division of International Educational Relations, representatives of embassies and legations, UNRRA, and the State Department, the division has cooperated in helping to meet the varied problems of persons from abroad who have come in increasing numbers either to study intensively in the United States or to familiarize themselves with the general nature of our educational system. There have been many conferences with individual student visitors. For those wishing to study elementary education in general or special education for exceptional children and youth, the division staff members have suggested teacher-education institutions at which they might carry on their chosen work.

Such service has applied to persons coming from the other American republics, from Poland, France, Australia, India, Denmark, China, Canada, England, and other countries. A group of 5 Chinese women visiting the United States under the auspices of UNRRA spent several days in conference with members of the division, who helped them plan their study programs while in this country. Samples of educational toys and equipment were selected and purchased with funds granted by China Relief and shipped to Chinese UNRRA for reproduction by Chinese in need of employment. Packets of printed materials and book lists were made up and sent to various countries, including Japan and Germany.

One of the Division's staff members has supervised a project of teacher education for teachers of Spanish-speaking children. Another has been a member of an Office committee to write a chapter for the 1946 Yearbook of the Department of Elementary School Principals on "Building World Good Will," and is also a consultant to a committee of representatives of Chief State School Officers working on a bulletin entitled "World Relations in State Educational Programs."

Research and Production

It became increasingly evident during the war years that school programs must face unexpected adjustments and be prepared to meet the challenge of planning for a vastly changed world. The importance of long-time planning became a conviction of those who saw the new role of the schools in helping to build a permanent structure of peace.

During these years the Office was a clearing house of information concerning the many postwar planning activities carried on by State and local school systems, educational organizations, and community groups. At the close of the war, a final study was made by the division of some results brought about by such planning on the State level. The findings were published under the title "State Postwar Planning in Education: Some Results."

Other publications permitted by the available printing fund, which represented intensive study and research and which have not already been mentioned, are as follows:

How to Build a Unit of Work.—This is designed to be of help to teachers who wish to improve their instructional procedures through the use of units of experience. It is not easy to build a unit of work in teaching fundamental skills and concepts, that make optimum and coordinated use of the child's experiences. It was in response to numerous requests for assistance that this bulletin was prepared.

Curriculum Adjustment for Gifted Children.—This was the outgrowth of several years of study on the part of a number of cooperating educators interested in the education of gifted children. An Office specialist acted as coordinator of the study. Under the title as indicated, fundamental principles and current school practices are presented in relation to children of exceptional ability, with emphasis upon the tremendous importance of helping gifted and talented pupils to achieve their greatest potentialities both in self-realization and in service to society.

Follow-up Report of the Terre Haute Workshop for Nutrition Education.—This is a publication growing out of the workshop on nutrition education held at Terre Haute State Teachers College in 1945. The importance of work in nutrition education is emphasized, and suggestions made for its successful operation on the elementary level.

Education in Residential Schools for Delinquent Youth.—In cooperation with the National Association of Training Schools, the Office had for several years been making a study of educational programs in institutions for juvenile delinquents. This publication is the outgrowth of the study. It presents (1) principles that should be applied to the development of the educational program; and (2) suggestions for study by the faculty of a training school to evaluate and improve its own program.

Schools for Children Under Six.—This is one of a series of periodic studies to show the current status of nursery schools and kindergartens. Schools for children under 6 years of age are assuming increasing importance as the result of a growing recognition that adequate behavior guidance and health protection in early childhood is an economy, as well as of an appreciation of the wartime nursery school service provided for children of women employed outside the home. The development of these schools has been followed by the Office of Education for a number of years, with attention given to increasing State legislative provisions, essential standards of operation, cooperative parent-school relationships, and the inclusion of nursery schools and kindergartens in the primary unit of the elementary school.

Members of the staff have contributed 28 articles to professional journals, a chapter for the 1947 Yearbook of the National Society for the Study of Education on Recent History and Present Status of Education for Young Children, and another for the Yearbook of the National Association of Science Teachers on Time for Science Teaching in the Elementary School. They have also contributed to bulletins and handbooks issued by the Association for Childhood Education, the International Council of Religious Education, the Northern Baptist Convention, the Child Welfare League of America, and the National Association for Nursery Education. They have prepared many reference lists in the different fields of their specialties, as well as lists of materials and apparatus, to be used in answering requests for information. A film on Extended School Services has been produced to be available for loan.

Collections of materials for loan or exhibit purposes might well be considered a part of the production activities of the Division. Such collections include samples of report cards used by local school systems, loaned during the year to 54 committees in 19 States and Canada; packets containing copies of State laws relating to schools for children under 6; an exhibit of pamphlets issued by State and local school systems and by colleges to explain the purposes, operation, and values of nursery schools, kindergartens, and primary classes; a picture-story summary of the nutrition workshop (elementary level) held in Terre Haute, which has been loaned to 100 persons or committee groups in various parts of the country; and a folding chart depicting various avenues for home-school cooperation, which has been loaned for the use of elementary supervisors' conferences.

The division has become a clearing house through which State supervisors of elementary education, including supervisors of special education, may keep in touch with the material issued by other States in these fields. Packet service is carried on whereby copies of all State bulletins on elementary education or on special education made available to the Office are sent to the respective State officials. Thus a coordination of purposes and unity of effort among the States are encouraged.

Personal Service to Individuals

All services described involve a vast amount of conference and correspondence with individuals, primarily professional coworkers concerned with the particular project under way. There is another large group of individuals, however, to whom the division gives personal service in accordance with their immediate needs. Through conferences at the Office and through correspondence, staff members have made personal contacts with individual teachers, students, parents, and other citizens seeking information or advice.

Some of the problems on which information or advice has been sought are listed here in order to exemplify the types of individualized service which staff members are called upon to perform: What material can I get for the use of a parent-education group? Where can I get inexpensive equipment for science in the elementary school? To what school should I send my child who is mentally retarded? How should we plan the work of the visiting teacher in our school system? What legislation should a laymen's group support in relation to education of young children? What should a teacher-education institution offer in the preparation of elementary teachers? Where can I get training for teaching the handicapped? How should our school system plan its program of extended school services? What preparation should a State supervisor of elementary education have?

These—and many others—are all-important questions to the person asking them. They are given the careful attention of the Office staff. Service to the individual inquirer, as in the larger realms of Office activities, is a definite contribution toward promotion of the cause of education.

Some Major Problems of Elementary Education

Throughout the year's work there have been evident certain major problems characterizing elementary education of today. One of the foremost questions to be answered is: How can the elementary schools help to prevent juvenile delinquency? With the mounting rates of delinquency that are reported from various sources, the responsibility of the schools in this matter also mounts. There can be no evasion of the problem. The Division of Elementary Education should be able to carry on research, compile information, and suggest ways and means of coping with it through the schools.

Closely related to this situation is the importance of developing a relationship between school and home that will reveal parents and teachers as partners in the program of education. There is a definite trend in this direction that needs to be strengthened materially, if child behavior is to be of a wholesome nature. Parent-teacher cooperation is being encouraged by the division.

It is not surprising that children who are ill-nourished or who have physical defects of one kind or another deviate from normal behavior patterns. Moreover, the physical examinations of draftees have left no room for doubt that, if such defects had been taken seriously in early childhood, a high proportion of the rejections could have been prevented. A functioning health program in the elementary schools becomes, therefore, a matter of great concern to the division.

With regard to teachers, we face one of the most critical situations ever encountered. Its increasing seriousness is evident from the fact that the number of emergency permits granted for teaching increased from 79,000 in 1945 to 108,000 in 1946. About three-fourths of these were in the elementary schools, where pupil progress and development are to so large an extent dependent upon the guidance of adequately prepared teachers. The recruitment of elementary school teachers and a well-balanced teacher education program that places emphasis upon functional values rather than upon the acquisition of subject matter alone are matters of first importance. What can the division do to help meet these problems?

Closely related to this situation is the inadequacy of educational opportunity for children of migrants and for children in many rural and isolated areas. This is where the most crucial shortages of teachers occur, and where it is most difficult to plan and achieve vitally functioning educational programs. The division endeavors to advise on the kinds of educational opportunities children need under such circumstances. There has been great demand for materials that might serve as guides in this direction.

The increased birth rate over the past 6 years is manifesting itself in kindergarten and first grade. One city reported a net gain of 472 pupils in elementary schools, with several hundred children waiting to get into kindergarten. The 3- and 4-year olds, too, are appearing in increasing numbers for nursery-school admittance. The development of emergency educational programs for this age group is leading to widespread acceptance of them as a regular part of the school system. The Division of Elementary Education should have more adequate facilities for giving information, carrying on research, and serving in a consultative capacity in this entire field.

The development of the community school, with community auditoriums and meeting rooms, with game rooms and playgrounds, with community health facilities, as well as with more space, more laboratories, and more work rooms for the children, is emerging as a means of bringing about a closer working relationship between school and community, teacher and parent. Many problems present themselves in planning such a program, with its instructional and organizational factors. Moreover, there is a change of attitude toward the school schedule. Shall the school year cover 12 months instead of 9 or 10? If so, what type of program shall it offer? Again, the Division of Elementary Education has endeavored to assist with research and guidance.

So also there are urgent problems of public relations. of the structural organization of the elementary school in relation to junior high schools, of the type of program to be followed in extended school services, of optimum adjustments for handicapped children, of plans for continuous progress of children through the early grades, and of plans for reporting pupil progress. All of these—and others—are matters requiring intensive research, continuing study, and the necessary staff to carry on the work.

SECONDARY EDUCATION

Establishment of the Division

The plan for the improvement and expansion of the services of the Office of Education as outlined in the 1944 Annual Report provided for the establishment of a Division of Secondary Education, to be accomplished in the fiscal year 1946. This provision was in keeping with the act of Congress of 1867 creating the Office of Education and designating as its purpose (1) the collection of statistics and facts that show the condition and progress of education, and (2) the diffusion of such information respecting the organization and management of schools and school systems, and of methods of teaching as will aid the people of the United States in establishing and maintaining efficient school systems, and otherwise promote the cause of education throughout the country.

The plan for a Division of Secondary Education was especially pertinent to this purpose owing to the fact that the period since the creation of the Office is largely the period of the development of high schools on a Nation-wide basis. This development is a most significant one, not only in American education but in the history of education throughout the world. No other country has undertaken to provide, on the scale that has taken place in our land, free secondary education—following a program of elementary education of usually 8 years—for all youth. Every State has had on its statute books for many years provisions for public high schools.

The serious manner in which the American public has regarded this assumption is indicated by the growth in secondary-school enrollments. In 1890 there were 357,813 persons, out of a total general population of 62.6 millions, enrolled in secondary schools. During the half century following, secondary-school enrollment increased approximately 9 times as fast as did the general population and more than 20 times as fast as the population group 14–17 years of age. While much of this percentage increase occurred during the earlier decades of the great development of high schools, the decade from 1930 to 1940 shows that secondary-school enrollments increased 7 times as fast as did the general population and 10 times as fast as the population group 14–17 years of age.

This phenomenal development of public secondary education has occasioned a need, on a national basis, for more adequate information, and other forms of services, than the Office has ever been equipped to supply. Information and services provided by the Federal Government to State and local governments operating secondary schools, and to other leaders in this phase of education, are needed for the improvement of secondary-school programs.

Organization of the Division

The Division of Secondary Education was organized in August 1945. Previous to that time there had been but one specialist in the office bearing a title in secondary education. This staff member was the only person working full time in this educational level. However, staff members representing functional areas such as vocational education, rural education, health education, and tests and measurements, served secondary education along with other levels for the respective functions their specialties represented. The organization of the division was effected with five professional persons, one serving as acting director, a divisional secretary, and three other clerical persons, all of whom were chosen from existing personnel. The 1946 budget provided for a director, three additional professional members, and one additional clerical person. The complement of the staff for the fiscal year was chosen during the next few months. The director entered upon his duties on November 30, 1945, and the other members during the next 5 months.

The division is organized for operating purposes as follows: Office of the Director, which includes the director, the secretary to the director, with supervisory responsibilities for the clerical staff, and the assistant director, who serves as acting director in the absence of the director; Section on Organization and Supervision, and Section on Instructional Problems. At the end of the fiscal year, June 30, 1946, the staff consisted of nine professional persons and five clerical persons.

The Office of Education is proceeding as funds are available to carry out the plan for the development of the division which ultimately calls for the employment of 74 professional persons. Provision has already been made for the addition by the end of the calendar year 1946 of five more members to the professional staff, each of whom will devote full-time service to one of the following phases of secondary education: Large high schools, general adult education, pupil personnel, nonreimbursable home economics, and educational research. The plan for the expansion of the division is in keeping with what has taken place in the development of secondary schools and with the need for meeting present problems arising out of new and changed social, civic, economic, and intellectual situations.

Activities

Upon establishment of the division by assignment of existing Office personnel, each professional person brought with him a program of ongoing projects. These, however, were not unrelated to the field of secondary education, as they were approved assignments carried over from the previous Division of General Instructional Services, which was not confined to any educational level, and from which all the personnel of the Division of Secondary Education was drawn. As specialists were able to undertake new activities, they were planned in accordance with the field of work to be served by the new division. In the case of each new staff member there were outlined and approved studies and other forms of activities in which he would engage during the year.

The Director received a large number of requests for field services, only a comparatively few of which could be accepted. He participated, for example, in the annual meeting of the College Entrance Examination Board held at New York; the meeting of the Sponsors of the Consumer Education Study undertaken by the National Association of Secondary-School Principals at New York; the State meeting of the Tennessee Association of Secondary-School Principals, Nashville; the meeting of the Commission on Accreditation of Service Experiences, American Council on Education, Chicago; the meeting of the Board of Trustees of the Educational Records Bureau, New York; the meeting of the Committees of the National Association of Secondary-School Principals on Curriculum Planning and Development, and Applied Economic-Core Curriculum; and the meeting of School Administrators, University of Pittsburgh.

Advisory Committee on Secondary Education

In accordance with the plan creating the division, there was appointed an Advisory Committee on Secondary Education. This is a continuing committee with rotating membership based upon a 3-year term. The function of the committee is to advise the Division of Secondary Education with respect to:

Types of services in which the division should engage.
Specific projects, studies, or undertakings which should occupy the time and attention of the division.
Facilities and procedures needed for carrying on the program.

The membership of the committee is as follows:

FRANCIS L. BACON, Principal, Evanston Township High School and Junior College, Evanston, Ill.
CLARENCE E. BLUME Principal, Central High School, Minneapolis, Minn.
ROY L. BUTTERFIELD, Principal, Benjamin Franklin High School, Rochester, N. Y.

Frank W. Cyr, Teachers College, Columbia University, New York, N. Y.

Harl R. Douglass, University of Colorado, Boulder, Colo.

D. H. **Eikenberry**, Ohio State University, Columbus, Ohio.

Paul E. Elicker, Executive Secretary, National Association of Secondary-School Principals, Washington, D. C.

Will French, Teachers College, Columbia University, New York, N. Y.

E. H. **Garinger**, Assistant Superintendent of Schools, Charlotte, N. C.

E. D. **Grizzell**, University of Pennsylvania, Philadelphia, Pa.

Earl Hutchinson, Director of Secondary Education, State Department of Education, Augusta, Maine.

Lloyd N. Morrisett, University of California, Los Angeles, Calif.

Francis T. Spaulding, Commissioner of Education, State Education Department, Albany, N. Y.

Sophie A. Theilgaard, Principal, Flower Technical High School, Chicago, Ill.

Harry E. Wood, Director, Fine and Practical Arts and Vocational Education, Indianapolis Public Schools, Indianapolis, Ind.

Galen Jones, Director, Division of Secondary Education, served as chairman.

The committee was called by the Commissioner to meet at the Office of Education, Washington, D. C., in May 1946. At the first session the Commissioner, Director, and other staff members reviewed the organization and program as outlined to date for secondary education.

The first discussion of long-range plans revolved around the services in guidance. With no dissenting opinion the members made it clear that they favored a much broader intrepretation of guidance than is implied in occupational information and guidance or than is possible under a plan which ties guidance services to vocational education. Although agreeing that occupational information and guidance are important, the major concern of the members of the advisory committee was that guidance in the Office of Education should not stop there. Especially was it emphasized that much of the counseling service should issue from the classroom teacher, whether in English, social studies, science, or any of the other subjects. The discussion indicated that the members of the advisory committee desired to go on record regarding guidance service. Accordingly, the chairman appointed a committee to prepare a statement. The report included the following:

> The counseling of pupils in the secondary schools of the United States with respect to their educational and personal problems is one of the most neglected yet one of the most important functions of the school. Many schools recognize the importance of counseling, but because of lack of leadership and staff competency fail to come to grips with the vital problems of youth. In only a few of our States do State departments of education provide effective leadership.
>
> Because of these facts the Advisory Committee of the Division of Secondary Education believes that the Division should exercise vigorous leadership in this field both with respect to State departments of education and local schools and school systems.

The report was unanimously adopted as the judgment of the advisory committee.

Another fundamental concept on which the members of the advisory committee expressed themselves repeatedly was the need for coordination among the various subject areas. Mentioned were family life, health, recreation, consumer education, and other areas which would be served through more than one subject field. Coordination would need to be effected not only within the division but no less among the divisions of the Office. It was pointed out that, under the Commissioner's plan, coordination among divisions would be brought about through committee action and through section chiefs in the various divisions. Members of the advisory committee felt this was desirable, but that in addition there should be emphasis upon generalization as well as specialization in the organizational set-up.

A third topic that was canvassed at length was education in the thirteenth and fourteenth years. A subcommittee report which included the following was adopted:

> It is the belief of this committee that from the viewpoint of the pupils and also of the curricula, grades 13 and 14 are essentially a part of secondary education. Grades 13 and 14 in public-school systems, commonly characterized as the junior college, should be recognized as an integral part of secondary education.

The high point of the conference was reached with the consideration of what should be the program of the division in the months and years ahead. One after another of the advisory committee members spoke out in favor of having the Office of Education give an effective leadership to secondary education—not direction or control, but a leadership which would bring together the best thought and procedures and inspiration obtainable throughout the Nation.

Additional meetings of the advisory committee will be held during the 1947 fiscal year; and the deliberations of this group will continue to influence the program and services of the Division of Secondary Education. Two of the four members appointed for initial 1-year terms are being continued on the advisory committee. The new members are The Rev. M. J. McKeough, the Catholic University of America, Washington, D. C., and Bertie Backus, Principal, Alice Deal Junior High School, Washington, D. C.

Life Adjustment Training for the 60 Percent

Regardless of the cause, whether it is the lack of availability of schools, of proper and suitable instruction, of economic sufficiency, or any other reason, there has never been more than 73 percent of the persons of secondary-school age attending school. The peak high-school enrollment occurred in the school year 1940–41 when it reached

7¼ millions. However, for the graduating class of that year the survival rate for every thousand children who had entered in the fifth grade, in 1933–34, was 836 in the eighth grade, 792 in the first year of high school, 688 in the second year, 594 in the third year, 512 in the fourth year, and 462 graduates. During the war years high-school enrollment dropped almost a million and a quarter.

One of the crucial problems confronting any effort to increase the holding powers of the secondary schools is that of providing varied curricular offerings to meet the needs, interests, and abilities of youth of secondary-school age. Although economic necessity is frequently given as the reason for dropping out of the secondary school, experience indicates that the great majority leave school because they do not find activities which challenge them, because the learning experiences are not suited to their abilities, and because life inside the school does not seem as real as it does outside the school.

In an attempt to stimulate consideration of this problem, Dr. Charles A. Prosser, who in the summer of 1945 was attending a vocational conference in Washington, D. C., called to give final approval of a report on Vocational Education in the Years Ahead, introduced the following resolution:

> It is the belief of this conference that, with the aid of this report in final form, the vocational school of a community will be able better to prepare 20 percent of its youth of secondary-school age for entrance upon desirable skilled occupations; and that the high school will continue to prepare 20 percent of its students for entrance to college. We do not believe that the remaining 60 percent of our youth of secondary-school age will receive the life adjustment training they need and to which they are entitled as American citizens—unless and until the administrators of public education with the assistance of the vocational education leaders formulate a comparable program for this group.
>
> We, therefore, request the United States Commissioner of Education and the Assistant Commissioner for Vocational Education to call at some early date a conference or a series of regional conferences between an equal number of representatives of general and of vocational education—to consider this problem and to take such initial steps as may be found advisable for its solution.

The resolution was adopted and transmitted to the United States Commissioner of Education, who instructed the Divisions of Vocational Education and of Secondary Education to collaborate in the preparation of plans to carry into effect the Prosser resolution. As a result a 2-day pilot conference was held at the call of the Commissioner, in New York City, April 11 and 12, for the purpose of discussing and giving cousel relative to the agenda for regional conferences, the kind and number of such conferences that should be held, and the techniques and practices to be employed in conducting them.

The personnel of the conference was composed of leaders in general and vocational education from nearby States and of representatives of the Office. An agenda was approved for use at regional conferences, topics that should receive consideration were pointed out, and recommendations made as to the number of regional conferences that should be held and what regions should be included. A regional conference was held in Chicago on June 10 and 11, 1946. Twenty outstanding educators from both the public schools and universities in nearby States attended on invitation of the Commissioner. The conference gave strong endorsement of the proposal to stimulate consideration of better programs and expanded educational opportunities for the group of youth with whom the Prosser resolution deals. The present plan is for three more regional conferences to be followed by a national conference for making recommendations.

School Organization and Supervision

Organization

The Section on School Organization and Supervision was organized as a separate unit with the appointment in November 1945 of the Office specialist in secondary education as chief, and three other professional persons. All the members of this section were assigned from present personnel in the Office. Consequently the section came into existence with a going program of projects. As these were completed, others were outlined and approved, with due regard to the assigned functions of the section.

Veteran Education

The end of the war, coming within the fiscal year, profoundly affected the emphasis in activities under way and gave direction to many of the new undertakings. The education of veterans is a case in point. The significant service given to veteran education by the high schools of the Nation has largely gone unheralded. Still in some of the larger cities the enrollment of veterans runs to 4 or 5 percent, even as high as 8 percent, of the total enrollment in day and evening high schools. In several smaller systems the education of veterans has the characteristics of a major undertaking.

The division is endeavoring to keep abreast of this development both by studying its extent and by making special studies of those veteran programs which appear to have especial merit. A study of status was completed and published during the year and an investigation of outstanding veteran programs is in progress as the year closes.

Evaluation of High-School Credit

The return of veterans to high schools has brought with it many problems relative to granting of credit, issuance of high-school diplomas, and the like. While the most urgent need for evaluation of credit concerns the returning veteran, the entire concept of granting credit for out-of-school as well as for in-school experiences has far-reaching significance which will be with our schools long after the veteran has departed.

State departments generally have established regulations or recommendations for procedures in evaluating training and experience gained in ways other than spending 120 clock-hours in a high-school classroom. Some of those procedures refer only to veterans; others are broader in their application. Some of the evaluations are accomplished through comparing certified descriptions of courses or experiences in the armed forces while others are made on the basis of examinations in specific subjects or in the general educational development tests—tests designed to measure mental maturity in several fields.

During the year a study of the use of examinations and out-of-school experiences for high-school credit was made. This study brings together the new provisions which States have developed recently on this subject. It is especially timely because of the number of veterans who desire high-school credits and diplomas in order to enter college. However, the study also reopens the whole question of what constitutes high-school credit and training.

Aptitude Tests

Just as the experiences with testing during World War I had important effects upon intelligence testing, so the widespread use of aptitude tests in World War II may have significant contributions to make to testing programs in the schools. The possible uses of some of these tests are being explored in a few high schools cooperating with the Office for that purpose. It is expected that reports on this project will become available during the coming school year. The project is a study of the new emphasis and direction for testing in secondary schools brought about by the research activities in measurement in the War Department.

Broadening the Services in Small High Schools

In the small schools, also, procedures are being tried out looking toward expanded services and new ways of providing effective education for youth in small towns and rural areas. One of the researches begun during the year has for its purpose the identification and study of small schools which have developed noteworthy extensions of their curriculum and other services.

In connection with this project, letters have been sent to 95 leaders in secondary and rural education in an effort (1) to determine the major factors which limit the services of small high schools to rural youth, (2) to ascertain the most effective internal plans or procedures which have been devised for broadening such services, and (3) to secure lists and make studies of small high schools which have been exceptionally successful in providing effective services to their communities. The data supplied are being supplemented through documentary research. The plan is to report the findings of this study in one or more bulletins.

Public Relations for Rural and Village Teachers

One of the chief reasons why rural schools as a group inadequately serve their communities is that neither the teachers nor their supervisors have given much attention to the problem of explaining these schools to the people or of planning with the patrons the school's activities and organization.

In 1945 the Commissioner appointed a committee of outstanding rural-school and public-relations specialists, headed by Otis A. Crosby of Detroit, president of the School Public Relations Association, to consider this situation and to prepare an authoritative report on the subject. The result was a document published by the Office of Education (Bulletin 1946, No. 17). It is written in a popular style, addressed directly to the rural teachers. It also contains many suggestions on good public relations helpful to rural-school administrators and to those charged with the preparation of teachers for these schools.

School-Work Programs

During and after the war there has been a great deal of work performed in industry and business by high-school students who have entered on part-time employment while they were still enrolled in school. From a condition under which many young persons were unable to secure employment of any kind, youth of high-school age were by wartime demands suddenly catapulted into a situation in which their assistance was solicited by employers. So insistent were the urges of good wages and of doing their bit that many boys and girls were tempted to drop out of school and go to work full time.

Faced by this condition, many high schools developed plans under which pupils might be released from school during part of the day in order that they might accept part-time employment. A study of such combined school and work programs undertaken jointly by the Office of Education and the Children's Bureau of the Department of Labor was nearing completion at the end of the year.

School Census, Compulsory Education, and Child Labor

Somewhat related to problems encountered in programs involving attendance in school coupled with part-time employment is a publication entitled "School Census, Compulsory Education and Child Labor" (Bulletin 1945, No. 1). This study is a State-by-State account of the State laws on the school census, compulsory education, and child labor. The account is useful as background material for the reorientation necessary for a national reconsideration of school attendance problems.

Industrial Arts

Industrial arts departments in the public secondary schools are suffering an especially severe handicap as a result of war conditions. Teachers in this phase of work were in such demand as instructors in programs for the training of workers for war industries and as skilled and technical workers in such industries that their ranks were very much depleted. A comparatively large number of vacancies could not be filled and many others were filled only by waiving desirable standards for teachers. Furthermore, during and since the war, equipment and other facilities for instruction have been available only to a very limited degree. As a consequence, there exists a problem relative to providing adequate instruction in this area of education. As an aid to the solution of this problem, the Committee on Standards of Attainment of the American Vocational Association, on which the Office is represented, revised in accordance with present-day needs a previous publication and issued it during the present year as a bulletin entitled, "Improving Instruction in Industrial Arts."

School Lunch Legislation

For more than 10 years now Federal funds in varying amounts and under varying plans have been used to help State and local school districts to provide lunch services for their children at school. This fact, plus the growing distances between home and school, the employment of many mothers, and other developments in our economic and social life, has brought about rapid increases in the number of schools which have school lunch programs and the children participating in them.

Statistics on these developments indicate that about 55,000 schools, or about one of every four, now provide school lunches and that approximately 7,500,000 children, or about one of every three, participate in such lunches. The statistics also show that slightly more than half of the schools having lunch programs, and two-thirds of the children participating in them, do so with the assistance of Government funds. This means that despite the recent rapid growth of this movement only one of every eight of all of the schools in the United States, and only two of every nine of all of the children attending school, now receive noon lunches with the aid of the Federal Government.

During this year efforts were made by this Office (1) to study existing legislation relating to Federal school-lunch grants, (2) to cooperate with other Government agencies, with State and other school authorities, and with various organizations, in developing principles and plans for sound programs, (3) to compile necessary statistical and other factual data, (4) to analyze and assess outcomes of projected proposals, (5) to supply the most authentic information available on school-lunch developments to the press and to other information outlets, and (6) to assist in every way possible to put school lunch grants upon the soundest possible basis.

On June 4, 1946, Public Law 396 was finally enacted. This law achieves the following results: (1) Federal school-lunch subsidies are now placed upon a permanent basis, thus giving the schools definite assurance as to the financial assistance they can count on from the Government; (2) it provides financial assistance in equipping lunchrooms, thus making it possible for the smaller schools in the poorer school districts to install a lunch program; and (3) it places the responsibility for administering these funds jointly upon the United States Department of Agriculture and the State educational authorities. However, Law 396 does not provide help to enable the latter to do their work effectively, neither does it provide for the development and employment of a professionally trained personnel.

Statistics of Public High Schools

During the war years the high schools of the United States have shown decreasing enrollments, partly because the lower birth rate of the early 1930's was making itself felt, partly because of other factors, many of them related to wartime conditions. There are evidences through reports coming in from individual schools and school systems that this decline in the high-school enrollment curve is being arrested. Some school systems are even showing a slight rise in the curve, although it is yet too early to predict that this is the beginning of a reversal in trend.

The Office has through the years supplied basic statistics which have shown the trends in the numbers of schools, pupils, graduates, and teachers in the high schools of the Nation. A recurring publication giving such information has been a chapter in the Biennial Survey of Education entitled "Statistics of Public High Schools." With the coming on of the war the assembling of this information was interrupted. During the school year 1945–46 there was launched jointly by the Division of Secondary Education and the Research and Statistical Service a study which will bring up to date and on a comparable basis the fundamental facts regarding the statistical position of public secondary education in the United States.

Cooperation With Educational Organizations and Government Agencies

Inevitably the staff members of the Section on Organization and Supervision are called upon to serve as committee officers, committee members, or consultants for a variety of organizations and agencies both outside and within the Government. Frequently these cooperative arrangements involve program appearances; often they call for preparation of manuscript in the form of committee reports or memoranda; generally they result in magazine articles; always they require attendance at meetings or conferences. Among the more important such responsibilities discharged during the year were the following:

The National Child Labor Committee completed a field study of work-school programs in a small number of large cities. For this purpose, there was created a special advisory committee which aided in planning the program of study, reviewed the report, and gave approval of the manuscript for publication. The Office of Education cooperated in this undertaking by assigning, on request, one of its staff as a member of the advisory committee.

The Office continued to completion during the year its cooperation with the National Society for the Study of Education in the preparation of a manuscript on Industrial Arts. A staff member was chairman of the Committee selected for this purpose. The manuscript has now been published as a chapter in the yearbook of that society.

A member of the staff served as secretary-treasurer of the American Educational Research Association and as member of a committee of this agency on researches in education carried on in the armed forces.

Another staff member was secretary of the National Committee on Coordination in Secondary Education.

The Joint Committee on Rural Sanitation, a committee composed of representatives of various Government agencies, established a subcommittee for the development of a bulletin on Rural Food Sanitation. A member of the division is chairman of this subcommittee.

The Inter-Agency Committee on Migrant Labor selected a member of the division to be chairman of a work group to develop recommendations on how to provide educational opportunities for the children of migrant workers.

The Cooperative Study of Secondary School Standards has been building up its funds in anticipation of a major revision of its evaluative criteria and procedures which were released in 1940 and have been used by thousands of high schools since that time. The division continued assignment of one of its members as secretary-treasurer of this organization.

The division continued cooperation with the American Dental Association by designating one of its members as consultant to the Committee on Dental Health for Children and Youth. During the year the committee prepared a manual on dental programs for young people in which schools cooperate.

Other cooperations in which members of the section on organization and supervision served were:

- Consultant to the research committee of Phi Delta Kappa.
- Membership on the Inter-Agency Committee on Educational Allowances.
- Membership on a committee on teacher exchanges established jointly by the Department of State and the Office of Education of the Federal Security Agency.
- Services on two committees of the American Vocational Association—one on industrial arts policy and planning committee, the other a committee on standards of attainment in industrial arts.
- Service with the Rural Service Division of the National Education Association in developing an effective program for meeting postwar agricultural and economic problems of the Cotton Belt.

Instructional Problems

Organization

The Section on Instructional Problems became a reality in the latter part of the 1946 fiscal year with the appointment of a Chief, a Specialist for Social Sciences and Geography, and a Specialist for Science.

The Specialist for Health Instruction, Physical Education, and Athletics had been assigned to this section at the time the Division of Secondary Education was established. The Specialist for Social Sciences and Geography and the Specialist for Science began their duties on February 15, 1946; and the chief of the section entered upon his duties April 24, 1946.

On March 28, 1946, an Inter-Divisional Committee on Education in the Natural Sciences was appointed "to insure careful consideration throughout the Office of a program of studies and services by the Office of Education in the field of natural science." The Specialist for Science was named chairman of this inter-divisional committee. On April 22, 1946, an Inter-Divisional Committee on School and College Health Services, Health Instruction, Physical Education, and Athletics was established. The Specialist for Health Instruction, Physical Education, and Athletics was appointed chairman of this committee.

The fiscal year closed with four professional workers. The projected plans for the section call for specialists in each of the broad fields of learning, working as a unified team in assisting school districts and State systems to improve instruction in the secondary schools of the Nation.

Studies

The Specialist for Health Instruction, Physical Education, and Athletics conducted an informal study to determine the *Cooperative*

Arrangements Between Departments of Health and Education in the Various States. The results of the study were made available to State departments of health and State departments of education and other interested groups. There is also in process a study of the *Functional Status of State Health and Physical Education Programs.* The many changes in legal and other requirements regarding instruction in health and physical education in the various States have caused schools to develop significant improvements in their programs. This study will reveal the actual status of these developments. It is expected that the study will be published by the Office during the 1947 fiscal year.

A bibliography of secondary school science courses of study was published in School Life, November 1945. It consisted of a review of 43 annotated bibliographical citations for the secondary school level. There is under way an exploratory study to secure information from the various States and territories regarding in-service training programs provided for science teachers. This information will be of value to the many science departments which, due to war conditions, are staffed with teachers who possess but limited training and experience for their work.

The Specialist for Social Sciences and Geography made preliminary plans for a study to consist of an inquiry into the teaching of United States history. The inquiry, as planned, will reveal important characteristics of the nature and extent of these courses. The question has been raised as to whether or not American youth have proper and adequate opportunities to learn the history of their country. This study represents an effort to secure the facts. A preliminary schedule of information to be secured was prepared in the fiscal year 1946 and plans were developed for securing the cooperation of State departments of education in conducting the study.

The periodic report, issued by this Office, on subject enrollment in public high schools was interrupted by the war. Such studies reveal trends and developments in curricular offerings and are of much value not only to those working with curriculum development in this Office but also to curriculum planners in secondary schools, teacher training institutions, and State departments of education. In order to secure current data and to provide comparisons with previous years, there is under way, in cooperation with the section on Research and Statistics, plans for making a study to cover such data for the year 1946–47.

Consultative Services

The Specialist for Health Instruction, Physical Education, and Athletics served as the officially appointed consultant in health education to the Health Education Section of the United States Public Health Service. He also provided leadership and consultative services in connection with a total of 6 workshops and 28 conferences through which hundreds of school workers in all parts of the Nation in the field of health, physical education, and athletics received opportunities to become more skillful and competent in their work. This specialist assisted a group of non-Federal agencies to develop effective programs of health services for employed groups. He provided consultative service for the Southern States Work Conference on Educational Problems covering 14 States. This conference prepared a document entitled *Suggestions for State and Local Studies of Health and Physical Education in the Southern Region.* He served as a consultant to the State department of education and the faculties of seven universities in California in the improvement of teacher training programs; and he worked with the State department of education and the State universities in North Carolina in the development of improved State health programs. He worked with the Midwest Physical Education Association and a number of State health and physical education associations in planning their programs of action.

The Specialist for Science served as a consultant to committees of teachers working for the improvement of science instruction in the States of North Carolina, South Carolina, and Georgia. He also served as chairman and consultant for the Western Area Science Leadership Training Institute held at Oakland, Calif. He consulted with leaders in State departments and public schools in Salt Lake City, Utah, Denver, Colo., Lincoln, Nebr., and Columbus, Ohio.

The Specialist for Social Sciences and Geography and the Specialist for Science served as members of the staff making the survey of the public schools of Delaware. After spending a week in school visitation, they prepared reports containing their findings and recommendations and submitted them to the chairman of the survey. The Specialist for Social Sciences served as a consultant to the committee working on social science courses for the agricultural and technical institutes of New York State. He acted as consultant to social studies curriculum committees in Cleveland, Milwaukee, Indianapolis, Cincinnati, as well as to similar committees from several communities in the State of Washington. He was a consultant to the Committee on World Relations in State Education Programs which had been appointed by the chief State school officers for the purpose of preparing a document to aid the States in this important work. This specialist acted as consultant to the Cooperative Test Service of the American Council on Education in the preparation of specifications for a new series of achievement examinations in history, and assisted with the preparation of specifications for a new history section on the graduate record examination test, American Council on Education.

The Chief of Instructional Problems served as consultant to the Bureau of Educational Research, College of Education, University of Alabama, in connection with the survey of the Mobile, Ala., public schools. A written report of the findings and recommendations resulting from this visitation and consultation was prepared for the use of the survey staff. He served as a consultant in the Maryland State Department of Education sponsored curriculum workshops at Towson State Teachers College and at Bowie State Teachers College for Negroes. Since the principal purpose of the workshops was to produce resource units for use in the rapidly developing junior high schools of the State, the personnel of the 11 working committees at each workshop represented careful selections from among the most able teachers and administrators in Maryland. During the 2-week period, 10 complete resource units and a manual for teachers were prepared.

Cooperative Services

The Specialist for Health Instruction, Physical Education, and Athletics served as chairman of an inter-agency committee which did the research for, prepared, and published a statement of the "Health Needs of School-Age Children and Recommendations for Implementation" (SCHOOL LIFE, vol. 28, No. 2). He was a member of a national committee on school health policies as well as several other important national committees working in the field of health, physical education, and athletics. Participation in the activities of these numerous committees involved the preparation of many bulletins and reports. This specialist assisted with the preparation of a yearbook to be published by the Department of Rural Education, National Education Association, dealing with health and physical education for rural schools. He also worked with a committee of the National Congress of Parents and Teachers in making plans for the national meeting of that organization in which emphasis was given to the health needs of school-age children. He represented the Office of Education on the National Conference for Cooperation in Health Education in connection with the work of preparing handbooks for school administrators, school physicians, and school nurses. In April 1946 he was named vice president of the American Association for Health, Physical Education, and Recreation, of the National Education Association.

Members of the section participated in the conferences of many State and national organizations of which the following are illustrative: American Association of School Administrators; American Political Science Association; National Education Association; American Association for Health, Physical Education, and Recreation; Association for Supervision and Curriculum Development; National Council for the Social Studies; National Science Teachers Association;

American Association for the Advancement of Science; Society of State Directors of Health and Physical Education; American Public Health Association; National Recreation Association; and various associations of the National Education Association.

Even though three of the four members of this section entered upon their duties late in the fiscal year, over 50 invitations to make public addresses were accepted. These addresses were made before audiences ranging in size from 50 persons to 600 persons and located in 26 States and the District of Columbia. They met extensive correspondence dealing with inquiries from teachers, administrators, and others seeking information on professional and related aspects of instruction in not only the subject matter fields represented by the existing specialists but also in all other fields at the secondary school level. Responses to such inquiries coming from every State in the Union have gone forward from this section in numbers averaging over 300 per month.

The Specialist for Science served as president of the National Science Teachers Association in which connection he worked with several committees of the association, some of which worked jointly with other organizations, such as the American Association for the Advancement of Science, the Department of State, the Consumer Education Study of the National Association of Secondary-School Principals, the National Better Business Bureau, the American Association of Teachers Colleges, the United States Soil Conservation Service, the United States Forestry Service, and the Bureau of Naval Personnel. Among the accomplishments of these committees were: (1) The preparation of a report on Science Course Content and Teaching Apparatus Used in Schools and Colleges of the United States, (2) the preparation of a report on Specifications for Commercial Supplementary Teaching Materials for Science, (3) planning a report on minimum standards for science laboratories as a basis for accrediting training institutions for teachers, and (4) planning a report on the Preparation of High School Science and Mathematics Teachers.

Among services rendered to committees and organizations by the Specialist for Social Sciences and Geography were the following: (1) Member of a planning committee for the Institute on the Position of the United States in World Affairs, jointly sponsored by the Civic Education Press and American University, (2) representative of the National Council for the Social Studies on the Committee on International Relations appointed by the National Education Association, (3) membership on a committee appointed by the National Council for the Social Studies to cooperate with the Treasury Department in preparing a bulletin on inflation, (4) membership on an Office of Education committee to cooperate with the Department of Justice in planning a Conference on Juvenile Delinquency, (5) assistance to the

Navy Department by rating the National contest essays of high school students on the subject, "What the United States Navy Means to Me," and by reading for historical accuracy the manuscript on the United States Navy for use in the indoctrination program for enlisted men, and (6) cooperation with the National Education Association in the preparation of a bibliography for use by educational workers in Korea.

In addition to those already referred to, members of the section prepared the following articles: (1) A section on the metric system in science teaching for the current yearbook of the National Council for Teachers of Mathematics; (2) an article on cooperative efforts for the improvement of science teaching in secondary schools (this paper was read at the meeting of the Society for the Promotion of Engineering Education held in St. Louis, June 1946. The paper will be printed in a forthcoming issue of the journal of that society); and (3) coauthorship of chapter V, "The Measurement of Understanding in the Social Studies," 45th Yearbook of the National Society for the Study of Education, 1946.

VOCATIONAL EDUCATION

In addition to the responsibilities for administering the federally aided program of vocational education, the Vocational Division was concerned with three major activities during the fiscal year, namely: (1) closing of wartime interests and activities with the necessary adjustments thereto; (2) salvaging useful assets growing out of specific war training programs administered in cooperation with the States by the Vocational Division; and (3) helping the States to accomplish the objectives set up in the bulletin entitled "Vocational Education in the Years Ahead." This bulletin, published during the year, was the report of a committee appointed to study vocational training problems in the postwar years.

Enrollments in vocational classes for the fiscal years 1945 and 1946 are shown in table 1, by type of program. Figures for 1945 are the latest for which complete reports are available. Figures for 1946 are based upon preliminary reports from the States and may be revised.

TABLE 1.—*Enrollment in federally aided vocational classes by the type of program, fiscal years 1944–45 and 1945–46*

Type of program	Enrollment	
	1944–45	1945–46 [1]
Total	2,012,931	2,205,397
Agriculture	446.953	494,182
Distributive occupations	152,781	173,475
Home economics	890,464	911,592
Trade and industry	522,733	626,148

[1] Provisional figures, subject to final review of State reports.

Federal, State, and local funds expended for vocational education during the fiscal years 1945 and 1946 are shown in table 2 by type of program. Expenditures given for 1945 are the latest for which complete reports are available, while the expenditures reported for 1946 are based upon preliminary reports from the States.

Agricultural Education

At the beginning of the school year the total number of teachers of vocational agriculture was 6,547, which represented a loss of about 400 from the previous year. Although final figures are not yet available, it is known that many teachers returned during the year from their war activities and that the total number of vocational agriculture teachers will likely be about the same as in 1945.

TABLE 2.—*Expenditure of Federal, State, and local funds for vocational education by type of program, fiscal years 1944–45 and 1945–46*

Source of funds	Expenditure by type of program				
	All programs	Agriculture	Distributive	Home economics	Trade and industry
1	2	3	4	5	6
1944–45					
Total	**$65, 638, 689. 84**	**$19, 151, 605. 90**	**$1, 932, 776. 62**	**$18, 217, 859. 30**	**$26, 336, 448. 02**
Federal	20, 004, 573. 38	7, 137, 391. 95	941, 836. 13	5, 097, 062. 60	6, 828, 282. 70
State	15, 344, 815. 44	4, 423, 239. 37	562, 281. 68	4, 396, 867. 48	5, 962, 426. 91
Local	30, 289, 301. 02	7, 590, 974. 58	428, 658. 81	8, 723, 929. 22	13, 545, 738. 41
1945–46 [1]					
Total	**$67, 747, 985. 38**	**$19, 785, 998. 11**	**$2, 213, 907. 38**	**$18, 656, 047. 95**	**$27, 092, 031. 94**
Federal	18, 561, 448. 11	6, 618, 216. 25	961, 224. 06	4, 425, 185. 27	6, 556, 822. 53
State	16, 451, 118. 45	4, 540, 336. 55	642, 997. 75	4, 833, 166. 94	6, 434, 617. 21
Local	32, 735, 418. 82	8, 627, 445. 31	609, 685. 57	9, 397, 695. 74	14, 100, 592. 20

[1] Provisional figures, subject to final audit of State reports.

Source: Digest of Annual Reports of State Boards for Vocational Education.

Special Programs

A special grant program in food preservation continued during the year until the end of December. In this program 429,061 persons were enrolled in approximately 3,200 food preservation centers. The number of quarts of fruits, vegetables, and meat canned amounted to 29,554,059, not including dehydrated and frozen food.

Just before the end of the fiscal year Congress appropriated $1,337,000 for a food conservation program extending from June 10, 1946, to June 30, 1947.

Program Planning

The central theme of regional conferences and presentations made by representatives of the Office before meetings and in consultations was pointed specifically to developments in agricultural education that appear desirable in the years ahead. Among the more striking features to receive consideration in the transition from war to peace are the establishment of area schools in several States where this form of expansion appears desirable in rendering more effective service to farm people, rebuilding and strengthening the basic features of the Future Farmers and New Farmers of America through resumption of many activities curtailed during the war period, and added emphasis to in-service training of employed teachers of vocational agriculture for upgrading poorly qualified war emergency teachers and to enable former teachers, following prolonged service in the armed forces, to adapt new program features.

Typical of the need for emphasis directed to in-service training of employed teachers is the report of teacher turn-over in one State, revealing that 85 different teachers were employed in 17 positions during the 4 war years. Other postwar developments to receive emphasis are: The reopening of many hundreds of departments closed during the war due to a lack of teachers; special measures to acquaint school officials with the purposes of vocational agriculture in the public schools; the establishment of local advisory councils for agricultural education in many States; the systematic follow-up of all-day students to full establishment in farming through young farmer and adult farmer classes; the elimination of prorated teachers of vocational agriculture; the expansion of the program to many new centers to attain greater accessibility for instruction in agriculture; added emphasis on the preparation of teachers in the field of farm mechanics and agricultural engineering in order to meet the demands of an increasingly more highly mechanized agriculture; and in preemployment teacher training programs to increase the amount of time devoted to directed teaching and observation and to expand the participating experience of trainees to include all aspects of a complete program in agricultural education. Improving the program of vocational agriculture so as to more effectively serve all farm people is the goal in the years ahead.

Veterans' Training

Veterans' training in agriculture is organized and uniformly operated by the Veterans' Administration in cooperation with the United States Office of Education.

After the passage of Public Law 346, the Veterans' Administration took the position that the Agricultural Education Service of the United States Office of Education, through the same services in the various States, was in the best position to provide the type of farm training needed by veterans who expected to farm.

The representatives of the Veterans' Administration in Washington and the Veterans' Administration in the several States met in regional conferences with the regional agents in agricultural education for the purpose of developing uniform policies relating to the operation of the training program. Following these conferences, the agent in agricultural education, the State Veterans' Administration, and the State staffs in agricultural education met in conferences within the States for the purpose of developing a State plan for veterans' training in agriculture which represented the contract between the

State Veterans' Administration and the State Board for Vocational Education. Whenever the plan included the training of veterans under Public Law 16, the Veterans' Administration in Washington also approved the State plan.

After the training program had been under way in the States for several months, the Retraining and Reemployment Administration representatives met with representatives of the United States Office of Education for the purpose of determining the policies relative to farm training for veterans from the standpoint of on-the-job training and self-proprietorship training. The RRA, as a result of these conferences, assumed jurisdiction over the on-the-job farm training, and left the responsibility for institutional-on-farm training to the Agricultural Education Service. A document entitled "Recommended Criteria for Schools Offering Institutional-on-Farm Training of Less Than College Grade for Veterans" was issued for use in the States.

Teacher Training

The effects of the war on agriculture and the program of agricultural education, the training needs to be met, and the basic features of the program in vocational agriculture all need to be taken into account in redeveloping and improving the program of agricultural teacher training. Features which have been promoted in agricultural teacher training during the year through the medium of regional meetings, publications, cooperative surveys and conferences represent a continuation of the work of the preceding year.

In addition, a comprehensive study was initiated relating to the character of training provided beginning teachers of vocational agriculture in the field of farm mechanics and agricultural engineering. This study is being carried out in cooperation with the American Society of Agricultural Engineers. The A. S. A. E. national committee, in projecting its program for the improvement of training for teachers, held one session to initiate the formulation of course material designed to achieve the objectives of the first report of the committee. Two regional meetings of State supervisors and agricultural engineers have been held to forward the purposes and objectives stated in the report of the national committee of representatives of vocational agriculture and the American Society of Agricultural Engineers which was designed to improve the training of teachers in vocational agriculture. Corresponding meetings have been held in many of the States.

Negro Housing Project

Negro teacher trainers in agriculture and home economics prepared a bulletin entitled, "An Educational Program for Improving Housing

Conditions of Negro Farm Families," which was issued in mimeographed form and used experimentally in 98 centers in 17 States during the year.

Farm Youth Organizations

The Future Farmers of America and the New Farmers of America, integral parts of the vocational agriculture program, have continued to provide valuable training and experience to students of vocational agriculture. Both the FFA and NFA held a national convention in 1945. Although attendance was limited, plans were made to redirect the activities of these organizations so they can be of most service in our reconversion effort. One of the major war emergency achievements last year by these organizations was the production and canning of approximately 1,000,000 cans of food for war relief. Membership in both of these farm boy organizations increased during the year and there was also an increase in the number of local chapters.

Research

The major project this year was the completion of the report of the Committee on Standards for Vocational Education in Agriculture. This report is based on an evaluation of 400 local programs and the findings have an important bearing on the forthcoming revision of the policy bulletin and the State plans.

Subject Matter

The service resumed its subject matter activities during the year. An agent in the service has been assigned to consult with specialists in the United States Department of Agriculture so that supervisors and teachers may be kept informed about new and other appropriate subject matter.

Business Education

In making the adjustment from a wartime to a peacetime program, constructive help was given to States in rebuilding supervisory staffs, expanding teacher-training programs, building long-term occupational training programs, developing cooperative relations with trade, professional, and educational associations, and planning cooperative programs of research.

Supervision

During the war there was a 95 percent turn-over of State supervisors. At the beginning of the fiscal year 16 States were without the services of a State supervisor for the distributive phase of business education and approximately 30 of the States did not employ a supervisor who was responsible for both the office training and distributive phases of business education. In accordance with the recommendation in Vocational Division Bulletin No. 234, *Vocational Education in the Years Ahead*, the Service has encouraged the employment of qualified head supervisors of business education who would give leadership and direction to all phases of business education.

Teacher Training

The inevitable de-emphasis of preservice teacher training during the war, particularly as it related to the training of teachers and coordinators of the distributive phase of business education; the serious shortage of qualified teachers, coordinators, and supervisors in every phase of business education; the rapid turn-over of teaching and supervisory personnel; and the need for greatly expanded local programs for youth and adults made it necessary that major emphasis be given to the rebuilding and expansion of teacher-training programs on both a preservice and in-service basis.

Assistance was given by professional staff members to the States and teacher-training institutions in developing adequate preservice teacher-training programs. The service promoted the organization of such preservice training on a cooperative basis in which adequate technical and professional training supplements occupational experience.

During the year the service in cooperation with a representative group of supervisors, teacher-trainers, and businessmen began the development of an in-service or graduate course in business teacher-training that combines work-experience, job analysis, and curriculum building to insure a proper balance and integration of technical training, professional training, and business experience; and to provide for the continuous improvement of teachers and supervisors by keeping their training and business experience current and adjusted to constantly changing needs.

Staff members conducted or participated in area and State conferences of supervisors, teachers, and coordinators. Assistance was given in local program planning and in the improvement of methods of promoting, organizing, and conducting classes for employed adults. Staff members also conducted institutes for the training of conference leaders and teachers of the supervisory courses in job-instruction training, human-relations training, and job-methods training. The demand for supervisory courses comes from department heads, supervisors, junior executives, personnel directors, training directors, and managers in a great variety of business establishments and organizations.

Cooperation With Government and Non-Government Agencies

The service extended its cooperative relations with the United States Department of Commerce, various trade associations in the fields of distribution and office management, and with professional and educational associations. Cooperative relations were maintained with these agencies in the interest of mutual understanding, cooperative research and planning, and for the development of instructional materials and Nation-wide training programs.

Program Planning

As the war-born emergencies affecting both personnel and training programs began to disappear, it became possible to rebuild and enlarge the program on State and local levels. Emphasis was placed during the year on helping the States to determine and identify training needs and in planning a well-balanced, comprehensive, and long-range training program to meet these needs. Assistance was given in developing a program which would include such elements as appropriate training for youth and adults; supervisory training for managers, department heads, and other supervisory personnel in business establishments; courses for the training and upgrading of owners and managers of small businesses; veteran training programs for the business occupations; and collegiate technical training in business administration, particularly distribution.

Research Activities

The service assisted teachers and supervisors, students of education, and professional organizations in planning and conducting studies and investigations dealing with or having a direct bearing on specific problems involved in establishing and operating classes and programs for various business occupations.

For returning servicemen and others wishing to establish or reopen small businesses of their own, an instructor's manual was developed for a course in the principles of selecting, organizing, and managing small business enterprises. The content of the manual was based on results of a study carried on in cooperation with trade-association executives, wholesalers, retailers, representatives of State boards for vocational education, and the Department of Commerce. The manual was made available to boards of education and other agencies carrying on training programs for persons starting small business enterprises and for owners and managers of small businesses already in operation.

A comprehensive study of practical and successful methods of organizing, supervising, and teaching business education was continued during the year with the assistance of a special advisory committee of educators, trade and professional association representatives, and businessmen.

Initial steps were taken in the development of a series of suggested research studies in cooperation with Delta Pi Epsilon, national honorary research fraternity in business education. The purpose of this project is to determine and report the areas of business education for which findings of studies and investigations are inadequate or nonexistent though urgently needed. In this connection a conference of representative businessmen, educators, and research specialists was held in Washington for the purpose of sharing with the staff their experiences with reference to needed research.

Research activities also include the completion of a series of job analyses carried on in cooperation with the personnel group of the National Retail Dry Goods Association and the education committee of the National Restaurant Association. The purpose of these studies was to determine specific subject matter content, to indicate the relative importance of instructional topics, to establish profiles of various jobs in retail organizations, and to provide a scientific approach to the selection of students for cooperative part-time retailing classes.

Initial steps were taken in planning and coordinating a series of State conferences of teacher trainers, local school administrators, and State school officials to consider what research is most urgently needed in teacher training and how teacher-training institutions can contribute to the improvement of research. The first of this series of conferences was held in Kentucky.

Cooperative research relations were initiated with New York University, whereby the business-teacher-training department of that institution made available to this Office, without cost, a member of its staff for a period of time for the purpose of assisting the Business Education Service in carrying on a research project.

Home Economics Education

During the war, home economics education workers at Federal and State levels and teachers throughout the country assisted with (1) the national nutrition program, including nutrition education and school lunches; (2) the war food production and conservation programs; (3) the food-rationing and price-control program; (4) homemaking and family relationship problems in housing developments and in industrial centers; (5) the planned spending and saving campaigns of the Treasury and the Office of War Information; and (6) the work of the American Red Cross in home nursing, first aid, nutrition, and sewing.

For home economists in education there can be no definite closing of interests and activities affecting homes and families because of the transition from a wartime to a peacetime basis. Nutrition education; conservation of food, clothing, household furnishings and equipment; management of the home and constructive use of all resources available; home care of the sick; and child care and human relationships are equally important in peacetime and continue to be stressed in all home economics instruction.

Assistance to the States

In program planning—Perhaps the most important contribution made to the program planning by the staff during the year was the preparation of the chapter on Homemaking Education in the bulletin, *Vocational Education in the Years Ahead.*

The central theme of the four regional conferences held during the spring of 1946 was program planning. The Central Regional Conference dealt entirely with homemaking education for adults as a part of program planning. In these conferences a total of 461 home economics education workers—State and city supervisors, teacher trainers, and heads of college home economics departments—considered together problems involved in regional and State planning.

The consultant for family life education visited three of the four experimental centers and gave consultant service in planning community-wide programs of family life education in nine other centers. With the assistance of a regional agent she also gave consultant services in the initiating of a city-wide program of homemaking education for adults.

In the North Atlantic region a working conference for city supervisors of home economics was attended by 56 persons—city supervisors, State supervisors, and conference consultants. Emphasis was on plans for the development in cities of expanded programs of home economics and for space and equipment.

A member of the staff served as school lunch consultant for the Southern States Work Conference at Daytona Beach, participated in the workshop for school lunch supervisors and managers at Teachers College, Columbia University, and helped to prepare lists of equipment for school lunches for the Surplus Property Board. A publication, Planning and Equipping School Lunches, was prepared in cooperation with the Inter-Departmental Cooperating Committee on School Lunches.

A bulletin, Opportunities in Home Economics for Girls—A Guidance Aid, was prepared for use by school administrators, counselors, and teachers in advising high-school pupils on the place of homemaking education in their program of studies.

Planning space and equipment for homemaking instruction is one phase of State and local program planning. Revision of the bulletin on Space and Equipment for Homemaking Instruction progressed. Two staff members worked in five States on recommendations for space and equipment for the teaching of child development and in nine other States on equipment for home economics.

In curriculum study and revision.—Staff members worked with home economics faculties on curricula in 27 of the 106 reimbursed teacher-training institutions. The length of time given to concentrated work at institutions with one exception ranged from 1 to 10 days. One staff member spent three weeks in Hawaii giving special assistance in the study of the curriculum at the university.

A staff member carried a large share of the responsibility for (1) a conference on evaluation of textiles and clothing work which was attended by 50 representatives from colleges and universities in the Central region—a follow-up of the textiles and clothing conference held in 1944, and (2) a conference on teacher-training and curriculum. Two staff members directed a 2-week workshop of college teachers of family relationships from 14 institutions.

Regional agents worked with entire State supervisory and teacher-training staffs in six States on problems of adjustments in curricula and revision of study guides and courses of study. Cooperative studies of city programs of home economics education were made in two cities, and follow-ups were made of cooperative studies in two other cities. In two city systems, assistance was given to supervisors in planning changes in curricula for junior and senior high schools. Consultant service was given in a State conference of city supervisors of home economics in which problems of curriculum in home economics in city schools were considered.

One regional agent worked with representatives of a State teachers college in planning a workshop for supervisors and school administrators on the organization and administration of homemaking education programs for adults. Another assisted directly in the planning of workshops for teachers in three States.

In the in-service training of supervisors and teachers.—A conference in the Pacific region on State supervision, led by a staff member, was attended by 18 State and assistant State supervisors from 11 States. Other staff members participated in workshops or State conferences for teachers in five States.

The regional agents for the Southern and North Atlantic regions conducted the annual interregional home economics teacher-training conference for Negroes. The main theme was planning ahead in education for home and family living.

A staff member worked with supervisors and teachers in five States on problems in connection with the teaching of child development at the secondary-school level.

In stimulating and making studies and investigations.—A staff member served as consultant to the home economics research committee of the American Vocational Association in drawing up plans for and carrying on a national study of factors affecting the supply of home economics teachers; made a compilation of abstracts of dissertations and professional studies in home economics since 1942; and worked in five States with persons directing or engaged in home economics education research.

In the development of two national youth organizations—The staff gave assistance to the national adviser and to State supervisors and State advisers in the further development of the Future Homemakers of America and the New Homemakers of America, both of which were organized in 1945.

At the end of the fiscal year the Future Homemakers of America had 168,057 members in 4,332 chapters in 45 States, Puerto Rico, and Hawaii, and the New Homemakers of America had 19,762 members in 579 chapters in 15 States, representing a gain for the former of over 73,000 members and for the latter of over 9,800 members during the year.

In interpreting the homemaking education program of the schools.—A staff member interviewed all persons from other countries who came to the Office for advice on home economics programs, provided them with home economics teaching materials and bibliographies, helped plan their itineraries, made necessary contacts with State personnel to assure the visitors an opportunity of seeing the type programs in which they were most interested, and advised on selection of college departments in which to study.

Homemaking Education in the Secondary Schools, a bulletin designed to answer requests from agencies, national organizations, and visitors from other countries for information on how the homemaking education program is organized, what it includes, and the methods of teaching used, was completed.

Cooperative Work With Other Agencies and Organizations

The staff worked with other divisions and sections within the Office on practical nursing education, better housing for Negro farm families, and services to visitors from other countries who were interested in home economics education. Assistance was given to 14 national organizations on various problems and projects related to home and family living; and cooperative work was done with 13 divisions of five Government agencies.

Trade and Industrial Education

The termination of the war production training program did not necessarily mean that either the representatives of the United States Office of Education or State authorities in trade and industrial education were involved in radical reconversion problems. Most States have continued their regular Smith-Hughes and George-Deen programs through the war period. The representatives of the United

States Office of Education had consistently followed the policy, beginning with the national defense training program in 1940, of advising State boards for vocational education not only to continue the regular program but to maintain standards as well.

Some of the contributions which the war production training program made to the regular program in trade and industrial education follow:

1. The widespread cooperation between the school authorities and private governmental agencies and groups during the war established trade and industrial education on a more solid basis.
2. The speed with which it was necessary to train military personnel and war workers necessitated the development of highly effective teaching methods. This experience has resulted in a greater effort on the part of teachers and supervisors in trade and industrial education to improve instructional materials and teaching methods.
3. The large amount of equipment purchased for the war production training program has reverted to the States for peacetime use.
4. Many trade-training programs established in new areas during the war are being continued on a permanent basis.

An especial effort was made during 1946 to cooperate with the States in the improvement of instruction in trade and industrial education. In pursuance of this purpose, the Office of Education assigned the four regional agents to study the work being done in the development of instructional materials and teaching methods in the industrial educational curriculum center for New York City and environs. After completing this task the agents immediately visited certain selected States to encourage and assist in the organization of similar projects.

The representatives of the Office cooperated with several groups during the year, as follows:

1. The National Association of State Supervisors and Teacher Trainers in making a study of the functions required in the operation of a local program of trade and industrial education, with special emphasis on the problems of instructional methods and content.
2. The National Safety Council in preparing a school shop safe practice pamphlet and in revising their bulletin entitled, "Safety in School Shops."
3. The National Safety Council Committee in devising methods for the improvement of safety education in schools and colleges.
4. The Army and Navy in providing basic information regarding instructional materials for job training.
5. The National Housing Authority in formulating plans for apprentice training in the building trades.
6. The representatives of the New York Central, the Union Pacific railroads, State officials in trade and industrial education and the Apprentice Training Service in planning and organizing a program of training for apprentices in six trades for the railroad industries.
7. State officials in trade and industrial education in numerous States in training teachers, coordinators, local supervisors, and directors, and

in developing instructional materials particularly for the building trades.

The study entitled *Vocational Education in the Years Ahead* contributed to the progress in trade and industrial education during the year in many ways. Probably the most immediate and direct value growing out of the work on the publication resulted from the numerous conferences held with State officials throughout the Nation. Postwar problems received serious and extended consideration at these meetings in so far as it was possible to determine them. The bulletin proved particularly useful as supplementary material for conferences and summer-school courses. Part I, which deals with the broader aspects of the social and economic problems affecting the Nation, has been a source of information for State boards for vocational education in their efforts to plan training programs for the future.

One of the most significant outcomes of the meetings conducted to determine the content of the bulletin grew out of the fact that the discussions emphasized the inadequacy of the public schools in meeting the major needs of all youth. In light of available data, the members of the conference were of the opinion that the college preparatory and vocational programs were probably serving with a reasonable degree of effectiveness not more than 40 percent of young people in so far as occupational needs are concerned. Therefore, almost two-thirds of the youths are not provided a comparative opportunity. A committee representing both general and vocational education was appointed to deal with this problem. A number of meetings were held during the year for the purpose of determining the chief factors involved as a basis for recommendations regarding the type of program that should be organized to meet the needs of these young people.

Aid was given foreign school representatives who were seeking information concerning the program of trade and industrial education in the United States. These persons were not only given advice and counsel regarding the organization and administration of trade and industrial education, but were provided bulletins dealing with training methods and content materials. In some instances itineraries were planned to enable them to study trade and industrial educational programs in operation.

Employee-Employer Relations

Improved relations and a clearer understanding of vocational education on the part of organized, interested groups, including labor and management, have resulted from the wartime vocational training activities. Many of the States and local communities are continuing the use of representative advisory committees set up for the war training programs in order to maintain labor and management cooperative participation in the transition from wartime activities to the regular long-term vocational education programs. Counsel and advice from such committees has been especially helpful in veterans' training programs conducted by the public schools.

In addition to his work of promoting better employee-employer relations, the employee-employer relations consultant, at the request of the Governor of the Panama Canal Zone, assisted in the conduct of a survey of training needs and in making a report which included recommendations for the improvement and further development of the vocational education program in the Panama Canal Zone.

Public Service Training

With the close of World War II and the gradual shift of emphasis back to the regular program of vocational education, more attention has been given to improving the efficiency of publicly employed personnel.

The public service training consultant assisted representatives of State boards for vocational education in connection with plans for organizing, maintaining and improving programs of training for public servants; conducted demonstration instructor-training courses and conferences to increase teaching personnel in States; appeared on national and State fire-training programs; prepared instructional materials; maintained working relationships with the various agencies and organizations concerned with improving the efficiency of public employees such as the American Municipal Association and the Federal Bureau of Investigation; and also served as chairman of the National Fire Protection Association's Committee on Firemen's Training.

Continued from the previous fiscal year was a project carried out with the Office of the Chief of Engineers, Army Service Forces, War Department, in which the consultant served as coinstructor in a series of three 30-hour fire instructor training schools held at Denver, Colo., Memphis, Tenn., and New York City. Some 75 men of designated service commands received instructor training.

Occupational Information and Guidance

Forty-two States are now providing specific supervision in occupational information and guidance. To serve these at the Federal level, the Occupational Information and Guidance Service during the year has been engaged in stimulating an understanding of technical skills; developing clear patterns of administrative relationships from State supervision to a program in a small school; developing the analysis of the knowledges and skills involved which require training not now available in many areas; and promoting and suggesting patterns for this training, both pre-service and in-service; serving as liaison among national public and private agencies, organizations, and institutions which are engaged in guidance work. Another activity has been that of serving as a central agency to answer those requests related to guidance work which any student, professional person, or citizen may make.

Program Developments

The staff of the Occupational Information and Guidance Service assisted in many phases of program developments. The field specialist visited 27 States, 56 cities, and 17 colleges. He participated in 1 national conference, 2 regional conferences, and 12 State conferences. Other members of the staff rendered field service in areas of work in keeping with their special assignments. The following are representative types of assistance given to States in program planning:

Training activities.—The pre-service and in-service training of counselors has been accepted as a major responsibility by most States. Much of the work of the Service this year was in the nature of a follow-up of two regional conferences held in April 1945 of colleges and universities engaged in the professional preparation of guidance workers in an effort to encourage them to develop and improve facilities for providing training in guidance work for teachers and counselors. Developing plans for the organization of in-service training was carried on in such work conferences as those held by Nebraska and other States. Michigan, West Virginia, Georgia, and other States were given assistance through their State staffs or colleges in their in-service training work, usually organized on a local or county basis.

Promotional work.—Some of the common types of promotional work occupying the attention of the States in which staff members of this Service have rendered assistance are as follows:

1. Visiting, with State officials, local schools and participating in conferences arranged for guidance workers, and in many instances for the entire staff.
2. Issuing publications and other material at the national level; stimulating research, and the preparation of bulletins and other sorts of publications at the State level; acting as a reviewing agent for State material.
3. Participation of staff members in the States with State personnel in meetings of professional organizations.

Cooperation with other services of the Vocational Division.—Another phase of program building has been the cooperation of the Service with other units of the Vocational Division and the State Supervisors of Occupational Information and Guidance in developing material, practices, and procedures useful to vocational teachers and students. Some of the activities were the results of follow-up on practices and techniques outlined in the bulletin entitled “Selection of Students for Vocational Training." Professional assistance has been rendered to many States in the development and publication of bibliographies for counseling with vocational students. These revealed sources, kinds, and uses of occupational information. Directories of training opportunities with particular reference to training opportunities available for veterans and adults were included. State school officials were aided both by this Service and their own State supervisors in the supplying of needed information in the curriculum studies. Two staff members from this Service worked in the State-wide survey of vocational education in one State.

Research projects.—The Occupational Information and Guidance Service, in cooperation with the Division of Higher Education, made a Nation-wide study of the offerings in the fields of guidance and personnel work in colleges and universities, which is useful to personnel workers, administrators, teachers, counselors, and college staffs. Another research project at the national level was determining the number of schools providing organized instruction in a course in occupational information, whether or not it was prescribed, and at what grade or achievement level. Stimulation and assistance to the States have been offered in the making of surveys of guidance practices in the States, the number of personnel assigned to specific phases of guidance work, and the amount and content of the training which guidance workers had.

Development of basic concepts through various types of conferences.—Program planning with the States included the development of certain basic concepts, such as the understanding that guidance is a responsibility of the school and that each staff member has a contribution to make. Much time and effort have gone into this type of work through field visits, correspondence, national and regional conferences. The instigation of studies and the preparation of material at the State level were encouraged. Local conferences to which school administrators were invited were a common means of work.

A national conference of State supervisors of occupational information and guidance was held in Denver, Colo., to consider problems of program development and administration. Fifty State supervisors of occupational information and guidance, counselor trainers, and State school officials from 33 States devoted an entire week to a working conference. Such problems as State administration, local administration, in-service training and local supervision, techniques, occupational information, and services from the Federal office were on the agenda. Eight working committees previously set up gave specific reports on the following topics: In-service training, the certification of guidance workers, occupational information, evaluation of guidance programs, administrative provisions for guidance programs in small schools, school-leaving record, and terminology. The reports of these committees have been distributed. Some of the reports are significant of new trends in guidance work and should develop into further exploration. Standing committees with an expanded membership have been organized for each topic and it is expected that the work of these committees will result in further reports at a later date.

Service as a national resource in the guidance field.—In spite of the handicap of being short two staff members, considerable assistance was given to agencies which have guidance-related projects. Active cooperation has taken place with the following agencies: The Department of Labor, National Vocational Guidance Association, Public Health Service, National League of Nursing Education, the Retraining and Reemployment Administration, the Southern States Work Conference, professional associations requiring editorial or writing services on occupational briefs, the Council of Guidance and Personnel Association, the Council of Social Agencies, the American Vocational Association, and others. Cooperative ventures have or will eventuate in joint publications and should be useful to students, guidance workers, and school officials.

Miscellaneous activities.—Members of the staff participated in various conferences and workshops interested in problems related to guidance work. Particular significance is attached to participation in group work involving public school and college administrators. Problems included patterns of guidance services for different types of administrative units, surveying the best practices for establishing on-campus guidance programs, and extension of training opportunities for guidance workers. Continuing close cooperation between the United States Employment Service and this Service eventually will affect publications of both agencies and result in relationships beneficial to students at time of entering permanent employment. Staff members have supplied many articles to magazines and professional journals. Several manuscripts are awaiting printing. Many short mimeographed releases have been prepared.

TABLE 3.—*Funds available for allotment to States from Smith-Hughes and George-Deen Acts, fiscal year ending June 30, 1946*

Purpose	Smith-Hughes Act	George-Deen Act
Total	[1] $7,285,122.03	[2] $14,483,000.00
Agricultural education	3,058,452.99	4,066,465.00
Trade and industrial education	[3] 3,111,913.15	4,056,857.50
Home economics education		4,051,677.50
Distributive occupations		1,254,000.00
Teacher training	1,114,755.89	1,054,000.00

[1] Includes appropriation for Hawaii and Puerto Rico under separate authorizing acts. Total appropriation Smith-Hughes Act, $7,167,000; Hawaii, $30,000; Puerto Rico, $105,000.

[2] Allotments to the States are made on the basis of this amount as authorized in the act. Actual appropriation for fiscal year 1946, $14,200,000

[3] Allotment for home economics included in trade and industrial allotment, not to exceed 20 percent for home economics.

HIGHER EDUCATION

The transition period of war demobilization and reconversion brought demands for peacetime services by institutions of higher education that are probably unprecedented in the history of America.

During 1946, national leadership in higher education was in constant demand and that demand continues to increase. Gigantic war training and production programs have been discontinued, and their lessons for the future should be interpreted and recorded before they are forgotten. Perhaps the greatest peacetime educational undertaking of any national Government in all history was initiated in the passage of the Servicemen's Readjustment Act of 1944 and related legislation, which provided higher, secondary, and vocational education for veterans. The shortage of teachers and prospective teachers has continued undiminished in both colleges and schools. Accompanying a marked shortage of qualified staff members in higher education was a serious shortage of college housing and other plant facilities. These shortages have developed at a time when more than a half million veterans and a backed-up flow of tens of thousands of young war workers are returning to the schools.

During the year, there was renewed interest in the field of curriculum and course revision. Such interest is intensified by the growing consciousness of the new role of America in international affairs, of the need for more effective civic instruction, of new applications of the physical sciences, and of new developments in health, transportation, construction, and other fields. Important new instructional elements are insistently demanded in the entire postwar pattern of knowledge, ideas, and attitudes which constitute the subject matter of higher education.

Changes in personnel during the year included the retirement of the Director, Dr. Fred J. Kelly, at the end of 15 years of distinguished service, and the appointment of Dr. John Dale Russell as his successor. A specialist in engineering education was added to the staff of the division, the Office's specialist in Negro education was transferred to it, and the specialist in the education of school administrators, who had returned from Army service, was transferred to another division of the Office.

Study of Vocational Education of College Grade

The investigation of vocational education of college grade which was initiated during the previous year was completed. The report was prepared through cooperative action of the staff and it is titled, Bulletin 1946, No. 18, Vocational Education of College Grade. The report describes the evolving program of intermediate education covering the indeterminate area between the work of the trade school and the professional school. Such intermediate work, including certain essential elements of general subject matter necessary to meet broad educational objectives in addition to purely vocational instruction, is increasingly in demand by veterans and others who desire college training that will prepare them for life and a job in less than 4 years. This and related types of college preparation, customarily given in community colleges, technical institutes, college lower division terminal curriculums, and similar institutions and units, are assuming an importance which must increasingly be taken into account by school men, Government authorities, and the general public.

Teacher Shortage and Its Remedies

The shortage of teachers, which was one of the most serious of all wartime problems in education, continued through the year with little or no improvement either in the schools or in the colleges. The number of emergency permits issued to public school teachers increased from 79,000 to 108,000, and many colleges reported unfilled vacancies on their staffs. Enrollments in teacher-preparation institutions continued to lag, amounting in October 1945 to less than two-thirds of the enrollments in 1940-41.

To meet the nationally recognized need for more and better qualified teachers, the specialist for teacher education devoted considerable time to the preparation and dissemination of materials useful in the placement, recruitment, certification, and employment of teachers. Divisional staff members participated in national conferences on teacher personnel problems, the most important being the National Emergency Conference on Teacher Preparation and Supply, which was organized by the National Education Association, and attended by approximately 300 representatives from practically all States.

Progress during the year in the improvement of teachers' salaries and working conditions was continuous, although rather slow. To regain the quality and extent even of prewar educational services may require from 2 to 5 years. Progress during the coming year will depend to a considerable extent upon the effectiveness of current efforts to inform the public accurately and fully concerning the nature and extent of current public school and college teacher shortages and the means required to remedy them.

Services in Preservice Teacher Education

An example of staff participation in national conferences devoted to the improvement of teacher education is afforded by the work of a staff member in the Third School for Executives, held at Chautauqua Lake, New York, June 17 to 27. This work conference on teacher-preparation problems was sponsored by the American Association of Teachers Colleges and affiliated groups. It was attended by approximately 175 presidents, deans, and other executives and staff members of teachers colleges and of colleges, as well as representatives of various schools, school systems, and educational organizations.

Most of the States were represented. Eight major and a few minor working groups were organized to discuss problems proposed by those attending, several addresses by prominent educators and others were delivered, and a number of processed reports were prepared on current educational areas of interest. Since the problems studied were decided upon by vote of the widely diversified membership of the group, the subject matter of the reports indicate some of the aspects of teacher education that were of greatest interest in the country during 1946: Teacher recruitment and selection; leading the professional growth of faculties; faculty organization and administration; general education; child development and improvement of direct experience of prospective teachers; regional general college work; college self-evaluation; and development of international understanding.

The nature of the problems in teacher education to which the staff gave attention in 1946 is further illustrated by the fields of inquiry of primary concern in the meeting of the Eastern States Association of Professional Schools for Teachers in New York City, which was attended by more than 1,000 students and faculty members, and in which the divisional staff was represented. These topics included: Revision of teacher-preparation curricula to meet the needs of the postwar world, teachers and international understandings, real life appraisal of teacher-education problems, needs and interests of students, improvement of teacher certification, and development of students in the power to think through the solutions to educational problems on their own initiative.

Staff members of the Office completed their work in a State-wide investigation of teacher education in State supported institutions, as a part of the Mississippi Study of Higher Education, initiated the preceding year.

Periodical Publication

The periodical, HIGHER EDUCATION, publication of which began in January 1945, was continued. Volume 2 was started with the issue of September 1, 1945, and closed with the issue of May 15, 1946. Eighteen issues were published.

In accordance with basic purposes of the Office of Education, the publication includes information concerning Federal policies and activities related to higher education, reports of studies made by staff members of the Office, and materials from colleges, universities, and educational organizations and associations. The purpose is to aid the people of the Nation, and particularly those who formulate and execute policies for higher education, in establishing and maintaining efficient schools, colleges, and universities. The periodical is also a means whereby people of other nations may learn about higher education in the United States.

HIGHER EDUCATION is sent free to college and university presidents, deans of most of the schools in higher institutions, and a limited number of other officials, and to a number of public libraries. Others may receive it, at a subscription rate of 75 cents a year, from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Land-Grant Colleges and Universities

The Office carried on the usual reporting and certification activities relating to the land-grant colleges and universities. During the year 1944–45 these 69 institutions enrolled 154,425 civilian and 38,890 military students in residence, a total of 193,315. This number was smaller than the enrollment in 1940–41 by 79,077. A total of 25,952 degrees were conferred, of which number 3,151 were graduate degrees.

The income of the land-grant colleges and universities for general and educational purposes for the year 1944–45 was $278,121,756, of which $115,429,772, or 42 percent, was from Federal sources. An additional amount of $5,920,933 was received for physical plant and $11,643,441 for additions to endowment. These figures may be compared with similar data for 1940–41, in which year the total income for educational and general purposes was $172,186,672, about 18 percent of it from Federal sources. The amount received by the land-grant colleges and universities for the year 1944–45 in accordance with the Second Morrill Act, the Nelson amendment, and the Bankhead-Jones Act (title II, sec. 22) was $5,030,000.

Visits of 1 to 3 days' duration were made to 3 land-grant colleges and universities for the purpose of studying their programs and learning about new developments in their organization and activities. A member of the staff attended the annual meeting of the Association of Land-Grant Colleges and Universities.

During the fiscal year 1946 the Division, in cooperation with a committee appointed by the executive committee of the Association of Land-Grant Colleges and Universities, began a study of curricula of less than degree length in the land-grant colleges and universities. Such curricula have been offered for years in these institutions. Currently there is a renewed interest in them. The study is being made to provide some guidance for institutions now offering or planning to offer curricula of this type.

Howard University

During the fiscal year 1946, the seventy-ninth in the history of Howard University, the institution operated 12 schools and colleges, enrolled approximately 5,130 students, and employed a teaching staff of 334 persons—209 on a full-time basis and 125 on a part-time basis. The total expenditures for the year, exclusive of auxiliary enterprises and scholarships, was approximately $1,779,100, of which amount $1,117,527 was from the Federal Government.

During the year Dr. George A. Works conducted an educational survey of Howard University under the auspices of the Administrator, Federal Security Agency. The Division of Higher Education served as staff headquarters for the survey. Two members of the staff rendered extensive professional service to the project; one made a study of certain factors which influence the demand for graduate and professional instruction of Negroes, and the other made a study of the educational program of the University. The survey was aimed at making an evaluation of certain programs and needs of the University, and it was intended particularly to consider the relationship of the Federal Government to the institution.

Dental Education and Research

The Office maintains a cooperative relationship with dental education and research, which is carried on by a member of the Division. He serves as: (1) the chairman of the standing Committee on Teaching of the American Association of Dental Schools; (2) a member of the Committee on Research of the American College of Dentists; and (3) a member of the Committee on Research in Examinations of the National Association of Dental Examiners.

The Committee on Teaching of the American Association of Dental Schools is engaged in a project to improve dental teaching. During the fiscal year 1946 two committees of dental teachers—one for histology and one for oral diagnosis—appointed by the Committee on Teaching made reports which were published in the Journal of Dental Education and considered in some detail at the annual meeting of the Association. Committees have been appointed for physiological chemistry, orthodontics, and radiography, and they are now preparing reports on these subjects.

The Committee on Research of the American College of Dentists awards grants-in-aid for research on dental problems, most of which is carried on in dental schools.

The Committee on Research in Examinations of the National Association of Dental Examiners is undertaking to prepare extensive lists of examination questions for use by boards of dental examiners.

Post-War Reconversion in Higher Education

Colleges and universities have been engaged in the task of adjusting staffs, programs, and physical facilities to meet the demands for education that have followed in the wake of World War II. As a continuation of activities reported in the 1944 and 1945 Annual Reports, the staff of the Division has devoted a major portion of its time in responding to requests from college officials for counsel and assistance on the immediate tasks of taking action on postwar plans that had been devised to provide education for veterans and others. These postwar plans did not call for a mere reconversion to prewar college practices; they were calculated to meet the life needs of the much larger number and greater variety of our population that was expected to be in college through the provisions of the Servicemen's Readjustment Act.

Due to heavy enrollment of veterans most colleges and universities have an acute shortage of residence and instructional housing and equipment. The staff of the Division has provided information and services to institutions on how to qualify and secure from government surplus the facilities for which they have or expect an acute shortage. These activities included cooperation with the program for providing student housing for veterans through the Federal Public Housing Authority; the formulation of criteria for the use of the Civilian Production Administration in granting priorities to colleges for the use of scarce construction materials, and the screening for certification of cases that did not clearly meet the criteria adopted by CPA; and the evaluation of requests by colleges to the Federal Housing Agency for priority materials for the construction of faculty housing.

As the fiscal year 1946 came to a close the Division was delegated the responsibility placed on the Commissioner of Education by Public Law 697 of making a finding of need for educational facilities, other than residence housing, which are to be supplied by the Federal Works Agency from Government surplus.

Staff members of the Division assisted in developing plans for the operation of a clearing house through which individuals and agencies responsible for referring veterans for admission to college could direct prospective students to institutions where vacancies in desired programs existed. This service was operated by the Division of Central Services. In connection with this project, the Division of Higher Education cooperated with the Veterans' Administration, the Office of War Mobilization and Reconversion, and two voluntary organizations in the field of higher education in making studies of the actual and potential impact of veterans on college programs, and on the extent to which veterans were likely to overcrowd or fail to make full use of schools of technology, liberal arts colleges, teachers colleges, junior colleges, and other types of colleges and universities.

Recruiting and securing the return of former college teachers to active duty was another area of college administration in which the Division assisted colleges. Through service on the Interagency Committee on Manpower Shortages of the Office of War Mobilization and Reconversion a staff member of the Division helped to formulate criteria by which the War and Navy Departments agreed to release members of the armed services for duty as college teachers, when they had been certified as eligible by the United States Office of Education. More than 800 requests for evaluation have been made by college officials and in excess of 500 men and women have been certified as eligible for release from military duty to help colleges provide instruction for the rapidly increasing enrollment of veterans. As the year comes to a close the Office has been authorized by the National Selective Service System to provide a related service to colleges through certifying for deferment college teachers deemed essential to the provision of education for veterans and others.

Graduate Study

The Division has continued a program for stimulating and giving direction to graduate study in American universities. In addition to giving addresses before general meetings of three associations of graduate school officials and working with their committees which are developing plans for accrediting graduate study, one member of the staff had published by the American Council on Education a study, Toward Improving Ph. D. Programs, which had been prepared for the Council's Commission on Teacher Education. He also served during the year as a consultant to numerous graduate school officials.

State Surveys of Higher Education

Three members of the staff participated as consultants in studies or surveys of the tax-supported colleges of Arizona and of South Carolina. It was expected that these surveys would provide a plan of articulation and coordination whereby unnecessary duplication and gaps in the program would be reduced, to the end that the several colleges would operate more largely as a unified State-wide system of higher education.

Educational Directory

The annual directory of institutions of higher education (part III of the 1945–46 Educational Directory) was published. In addition to listing the 1,700 institutions, the directory classifies them according to type of work offered; gives an outline of the organization of each institution, with the names of the officers currently in charge of the main divisions; and indicates the control, the accredited status, and the type of student body—whether composed of men, or women, or both. It also lists the names of the institutions added to, and those dropped from the lists because of having closed, merged, or discontinued college work.

The service to various Government agencies, to institutions of higher education, and to students, in providing information on the accredited status of colleges and universities continued. In addition to furnishing information on the accreditation of institutions by means of the Educational Directory, answers are made daily to a large number of inquiries concerning the accreditation of individual institutions. The expanded relations between the Government and the colleges and universities existing over the past 5 years have resulted in a constant and ever-increasing flow of these inquiries.

Inquiries from Individual College Staff Members and the General Public

An important part of the work of the Division is to supply information on a wide variety of topics in higher education to individual inquirers through correspondence, wire service, office or field conferences, and other means. Thousands of such inquiries are handled annually. In 1946, the number increased markedly. They came from practically every State, and from many foreign countries. Many letters on educational topics were referred to the Office from other Federal agencies.

Education of Negroes

In addition to the general services rendered to Negroes by each of the units of the Division of Higher Education, special services have been rendered through the following projects:

Problems involved in improving the postwar education of Negroes and in assisting educational institutions to prepare to meet the needs of returning veterans were considered at a conference held in the Office last year, and reported in a bulletin published this year entitled Postwar Education of Negroes: Educational Implications of Army Data and Experiences of Negro Veterans and War Workers. The Julius Rosenwald Fund financed the first two printings of the bulletin. The third printing was financed and distributed by the National Association for the Advancement of Colored People and the United Service Organization. The demand for this publication still exists although the supply has been exhausted for months. Articles based on the findings reported in this bulletin appeared in Higher Education and in Occupations.

An annotated list of sources of instructional materials on Negroes, originally issued as a mimeographed leaflet by the Office, was revised and printed through the cooperation of the Commission for the Defense of Democracy through Education and the Joint Committee of the National Education Association and the American Teachers Association. From the increasing number of requests received this pamphlet seems to be meeting a growing need for materials on intercultural and intergroup relationships. In order to meet this growing need, the agencies mentioned above also ordered a reprinting of Office of Education Bulletin 1944, No. 2, Education of Teachers for Improving Majority-Minority Relationships.

In order to answer a growing number of requests about the manner in which the Federal Government promotes the education of Negroes, an article, published in School Life under the caption, A Decade and a Half of Progress in Negro Education, discussed the special programs and activities of the Office of Education in behalf of Negroes during the period from 1930 to 1945. This article supplemented a previous one which discussed the same subject covering the period from 1867 to 1930 and another one which treated special services during the period of World War II.

As a part of a survey of Howard University sponsored by the Federal Security Agency, a section was prepared on Certain Factors Conditioning the Demand for Graduate and Professional Instruction of Negroes.

Adult education of Negroes.—A conference held in the Office during December 1944 brought out and discussed the problem of functional illiteracy among Negroes. It was shown that 41 percent or two out of every five Negroes in the United States had not advanced beyond the fourth grade, and that proportionately eight times as many Negro selectees as whites were placed in classes IV and V (functionally illiterate). After a consideration of these and other facts reported in Postwar Education of Negroes, in other publications, and by Army and Selective Service officials, the Office invited the cooperation of the American Association for Adult Education, the National Conference on Adult Education and the Negro, and the Carnegie Corporation of New York in sponsoring a comprehensive project to prepare teachers and materials for adult illiterates.

The project has five phases. The first was a conference held in the Office of Education for the purpose of defining the problem, indicating the way it had been attacked or is now being attacked, both by civilian agencies and the Armed Forces; and suggesting implications for future action. Participants in the conference comprised 61 persons representing colleges in four selected areas, governmental agencies, city and State departments of education, and educational, civic, and social welfare organizations. The second phase of the project, which was planned this year, is an adult education institute, the purposes of which are to (1) prepare personnel for the training and supervision of teachers of adults in the tool subjects; (2) demonstrate the effectiveness for civilian use of certain educational techniques developed by the armed forces; (3) collect, consider, and evaluate resource materials for the teaching of adults; (4) identify and classify the major problems of Negroes that are amenable to adult education on the elementary level; and (5) formulate a tentative instructional guide, work books, and readers for the teaching of adult illiterates.

The third and fourth phases of the project will be concerned with testing, appraising, revising, and publishing the materials produced in the Institute; and the fifth phase comprises a series of regional institutes in selected areas during the summer of 1947. It is expected that at the close of this special demonstration project sufficient progress will have been made in the preparation of teachers and materials to begin a general attack on illiteracy throughout the country.

Consultative and advisory services.—Consultative and advisory services were continued as in previous years, the following organizations, agencies, or institutions being typical of those served: American Teachers Association; Association for the Study of Negro Life and History; Bureau for Intercultural Education; Conference of Presidents of Negro Land-Grant Colleges; Southern Education Foundation; United Negro College Fund; Lincoln University; Miner Teachers College; Hampton Institute; Wilberforce University; High School Principals Association of Maryland; National Conference on Adult Education and the Negro; National Council of Negro Women; National Study of Business and Business Education Among Negroes; Howard University conference on The Postwar Outlook for Negroes in Small Business, the Engineering Professions, and Technical Vocations; United States Public Health Service; and the National Education Association's Steering Committee on Education in the Cotton Belt.

In addition to the services indicated above, numerous conferences were held with individuals and thousands of letters and pieces of literature were sent out upon requests.

New Services in Engineering Education

Late in the year the services of a graduate engineer were made regularly available to the Division for the first time. The desirability of such services to more than 150 engineering colleges and nearly 130,000 engineering students has been increasingly indicated by wartime and postwar demands for engineering information and personnel, and by the interest of veterans and other students in the field.

The operation of the ESMWT program from 1940 to 1945 established cordial relations between the Office of Education and the engineering colleges, and led to a realization of the value of the services which might be rendered by the Office to these colleges, and through them to the scientific and technological development of the Nation. Both of the ESMWT advisory committees recommended that permanent staff members be added to the Office of Education for this purpose. Many specific services have been suggested by presidents and deans of engineering colleges.

Near the close of the fiscal year 1945–46 the former field coordinator of the ESMWT program was retained on the staff of the Division of Higher Education as a specialist in engineering education, to be a liaison officer between the Office and the engineering colleges, serving the colleges and governmental agencies in a spirit of mutual helpfulness, without infringing in any way on the responsibility or authority of any institution. Most of the colleges have designated a staff member (generally the dean of engineering) to serve as the liaison officer between the institution and the Office of Education, thus establishing a definite channel for the two-way flow of information. The new service will be continued during 1946–47 and subsequent years.

The specialist in engineering education will be concerned, among other activities, with planning and conducting studies and investigations of a professional character in the field of engineering education, either independently or in cooperation with colleges and other organizations, and preparing studies for publication. One example is a study in which he aided the Society for the Promotion of Engineering Education during the spring of 1946. Under consideration are a study of the trends in engineering college enrollments and their implications for engineering education, a study of admission requirements and scholastic regulations in engineering colleges, a digest of Federal laws and regulations of special interest and importance to engineering and scientific educators, a description of the organization and activities of Federal agencies whose activities most directly affect engineering and scientific education, a study of salaries and teaching loads in engineering colleges, a bibliography on engineering education, a study of cooperative engineering education, and others.

The specialist is concerned with establishing and maintaining cooperative working relationships with engineering college administrators, industrial executives, government officials, professional organizations of engineers and of engineering educators, and lay organizations interested in the development of engineering education, by participation in meetings of such organizations and cooperation with their officers. For example the specialist during the spring of 1946 addressed a regional meeting of the Society for the Promotion of Engineering Education (which in June 1946 changed its name to the American Society for Engineering Education). He served as a member of a national committee of this society which prepared a report entitled "A Study of the Supply of and Demand for Engineering Graduates," which was published by the society and has attracted wide attention. He participated in the national meeting of the society, serving as chairman of the society's committee on secondary schools. He also served as a member of the National Academy of Sciences Advisory Committee on Surplus Property and as a member of the Office of Education's Advisory Committee on Surplus Property.

The specialist is establishing and will maintain a national clearing house for information of value to industrialists, governmental officials, engineering educators, and prospective engineering students. An engineering college directory is being developed to include lists of all engineering curricula, with information as to accreditation and full information concerning the facilities of the engineering colleges.

It is believed that this new service will prove of distinct value to the engineering colleges and to engineering education in general.

Engineering, Science, and Management War Training

The Engineering, Science, and Management War Training program was liquidated during the year, an appropriation for that purpose having been made in Public Law 124, Seventy-ninth Congress, first session. A small staff was maintained in the Office to expedite the work of preparation, examination, and approval of final reports from the participating institutions and to prepare the official records of the program for permanent filing with the Archives of the United States.

One staff member prepared a bulletin entitled "ESMWT—A Final Report," being published as a bulletin of the Office of Education. This report consists of two main parts and a bibliography: Part I is a narrative account of the program; part II is a technical section setting forth in greater detail the authorizations of Congress, the organization established to operate the program, and the general methods of administration employed, and outlining the principal appraisals made of the program during its life.

For the benefit of any who may be interested in still further details of the program, there is assembled in the office a comprehensive historical collection of forms, manuals, organization charts and other administrative documents, minutes of meetings of advisory groups, releases from the Washington office, detailed statistical reports, appraisals of the program, and testimonial letters from industries served by the program.

The ESMWT program was operated during 5 fiscal years, the first classes starting on December 7, 1940, and the last classes closing on June 30, 1945. Five successive acts of Congress appropriated $88,500,000 "for the cost of short courses of college grade . . . designed to meet the shortage of engineers, chemists,[1] physicists,[1] and production supervisors [1] in fields essential to the National Defense . . . not to exceed 20 percentum [2] of the amount allotted to any school shall be allotted to it for expenditure for purchase or rental of additional equipment and leasing of additional space found by the Commissioner necessary for carrying out its approved plan."

Total enrollments in courses conducted under this program were 1,795,716. The total cost to the government was $59,967,065, an average of $33.40 per trainee. The high percentage of appropriated funds which was not used was due to the small administrative appropriations for developing the program and to the care which was exercised by the Washington staff and by the participating institutions throughout the program to insure strict economy in its operation. The contact hours per trainee varied from about 20 to 600 or more, the average for all courses being about 100 contact hours. The cost per trainee hour, therefore, averaged about 33 cents for the entire program.

The total cost of the program was distributed as follows: general administration, 24.2 percent; instruction, 67.5 percent; maintenance and operation of the plant, 8.3 percent.

Summary of entire ESMWT program.—Table 4 sets forth the 10 specific types of courses in which the greatest ESMWT enrollments were reported over the entire 5-year period. Similar tables for each successive fiscal year have been included in earlier issues of the Annual Report. Comparisons of these tables with each other and with Table 4 illustrate graphically the changing requirements of the war production program and the flexibility with which ESMWT was able to meet them.

Table 5 presents a brief statistical summary of the entire 5-year program of college-level defense training courses which were conducted under the auspices of the Office of Education. All enrollments are based on final enrollment reports from participating institutions, all of which had been received when this table was prepared.

---

[1] This field was not included in the program during 1940–41.

[2] Changed to 12½ per centum for the fiscal year 1944–45.

TABLE 4.—*Cumulative enrollment by specific type of course from Oct. 9, 1940, through June 30, 1945*

Type of course	Enrollment	Percent of total
Engineering Drawing and Descriptive Geometry	169, 313	9. 4
Communications	125, 996	7. 0
Personnel Administration and Labor	121, 281	6. 7
Accounting	102, 753	5. 7
Industrial Organization and Management	95, 489	5. 3
Mathematics	88, 764	4. 9
Production Engineering	87, 115	4. 8
Safety	66, 441	3. 7
Electronics	59, 995	3. 4
Aeronautical Structural Engineering	55, 756	3. 1
All other courses	822, 813	46. 0
Total	1, 795, 716	100. 0

TABLE 5.—*Enrollment in EDT, ESMDT, ESMWT I, ESMWT II, and ESMWT III courses from Oct. 9, 1940, through June 30, 1945*

Item	EDT,[1] 1940–1941	ESMDT, 1941–1942	ESMWT I, 1942–1943	ESMWT II, 1943–1944	ESMWT III, 1944–1945	All programs, 1940–1945
1	2	3	4	5	6	7
Institutions which participated in program	143	194	214	195	172	(2)
Courses operated in:						
All fields	2, 182	7, 598	12, 740	11, 547	8, 501	42, 568
Engineering	2, 182	6, 174	9, 527	7, 859	5, 723	31, 465
Chemistry	---------	220	480	437	296	1, 433
Physics	---------	132	231	270	238	871
Production supervision	---------	1, 072	2, 502	2, 981	2, 244	8, 799
Enrollment in:						
All fields	120, 802	438, 503	596, 134	402, 684	237, 593	1, 795, 716
Engineering	120, 802	350, 564	443, 938	265, 366	156, 555	1, 337, 225
Chemistry	---------	7, 914	13, 929	10, 664	6, 331	38, 838
Physics	---------	5, 813	11, 998	8, 620	5, 984	32, 415
Production supervision	---------	74, 212	126, 269	118, 034	68, 723	387, 238
Full-time courses	18, 607	22, 021	47, 305	14, 379	3, 942	106, 254
Enrollment of:						
Females	811	38, 341	130, 245	79, 612	33, 226	282, 235
Negroes	849	3, 265	10, 539	7, 574	2, 931	25, 158
Veterans	---------	------------	------------	6, 094	8, 221	14, 315

[1] Instruction began Dec. 9, 1940.

[2] 227 institutions participated in at least one of the five programs.

Student War Loans Program

The Student War Loans Program was authorized by Public Law 647, Seventy-seventh Congress, second session, approved July 2, 1942, and Public Law 135, Seventy-eighth Congress, first session, approved July 12, 1943, to provide Federal loans to students in various professional fields for the purpose of enabling them to complete their education.

Loans were made in this program to 11,081 students in 286 colleges and universities, amounting to a total of $3,327,836.32.

The law provides for repayment of the loans in four equal annual payments of principal, with accrued interest, beginning 1 year after graduation or separation for other purposes. Further provisions are made for cancellation of the unpaid balance of the loan when the borrower is inducted into the military services, before graduation, through the Selective Training and Service Act, and for deferment of interest payments and repayments of principal during military service of the borrower. The work of the program, since June 30, 1944, has been concerned with the administration of these two provisions, and with the fiscal services related to collections. These duties have occupied the full time of three staff members and part of the time of a fourth.

Although most of the borrowers have been in the military services, with their payments deferred, collections amounted to $777,524.19, as of June 30, 1946, and about 17 percent of all loans had been paid in full.

A brief history of this program has been written and is being published as a bulletin of the Office under the title "Student War Loans Program—Final Report." The report outlines the origin of the program, its principal operating characteristics, and the results attained. Tables are included in it showing the distribution of loans by institutions and by fields of specialization of the borrowers.

CENTRAL SERVICES

The Central Services Division, as the name implies, brings together in one division those services that are necessary to facilitate the operations of the Office of Education as a whole. Reports of the units follow:

Research and Statistical Service

In the past year, an initial step was taken in the organization of a Research and Statistical Service by establishing a position of Chief of the Research and Statistical Service, and transferring to this new Service the functions of the former Statistical Division. The former division became the reports and analysis subdivision of the Service, continuing its former responsibilities for the preparation of basic periodic statistics on education.

The biennial survey projects for 1944 were carried through and completed after redesigning techniques and procedures.

As a means of reviewing the entire statistical function of the Office, a conference of educators and technicians was held in October 1945. The result of this conference have been published in a bulletin, and represent a policy guide or charter for the development of the statistical program of the Office.

A plan was developed for the coordination of the research and statistical functions of the Office of Education. This was achieved through the establishment of an Inter-Divisional Committee on Research and Statistics, the development of operating relationship of various staffs of the Office, and the introduction of a plan of review and clearance of all plans and forms for securing information.

The 1946 biennial statistical surveys were redesigned to make fullest possible use of machine tabulation equipment to produce reports at an earlier date and at less cost. Following recommendations emphasized in the conference on the Office of Education research and statistical program, scientific sampling was experimentally introduced by the Service in the work of the Office: (*a*) In a sample survey made in the fall of 1945 of higher education statistics, and (*b*) in a survey of school-age population conducted at the request of the Office of Education as a part of the Bureau of the Census Monthly Report on the Labor Force.

Another development was an experimental attempt to follow through a recommendation of the conference that Office of Education materials be presented in graphic form for use of nontechnical consumers.

The Service assisted in the development of emergency programs of the Office. It established and conducted the research and statistical aspects of planning and reporting for the Surplus Property Utilization Program, and developed, at the request of the Veterans' Administration, an operating plan for the establishment of State centers for the collections and dissemination of information on educational opportunities for veterans.

Members of the staff of the Service contributed further to the achievement of its functions by serving on interagency committees involving various other agencies of Government working on special problems, by the preparation of articles published in professional journals, by providing technical advisory service to a congressional committee and others on problems of grants-in-aid to education, and assisting States, on request, in research and survey problems, and in revising State statistical accounting systems.

Information and Publications Service

General Function

In promoting the cause of education throughout the country, the Office is charged with the responsibility of disseminating information and aiding the people of the United States in the establishment and maintenance of efficient school systems. This charge of responsibility requires within the Office a corps of educational specialists, each of whom serves as a channel of communication to professional and lay groups. To facilitate the effectiveness and to expand the range of such communication, the Information and Publications Section has been designated as the chief instrument through which the Office develops a comprehensive information and publications program.

The Section performs the customary services of publishing the professional findings of specialists in official bulletins and of translating such findings into suitable form for dissemination through all media of communication, especially newspapers, magazines, and radio. In addition, the Section provides professional leadership in the whole field of educational journalism, including the organizing of programs of public information about education, methods of graphic presentation and appropriate writing techniques. Within the Office, the Section reviews and confers with responsible officials on the public-relations effect of the total program of the Office of Education. In April a newly appointed Chief assumed responsibility for directing the work of the Information and Publications Section.

A Study of Educational Public Relations

The Section convened a national advisory group of experts in educational public relations to discuss and make recommendations looking toward a long-time public relations program for the Office. Professional problems in the public relations field were discussed by the Chief at the national conference of the American College Public Relations Association and the workshop of the Educational Press Association. The Chief served as a public relations consultant to one State department of education in the development of its program. At the request of the Educational Director, Public Information Division of the United Nations, the Chief arranged a conference of key editors of educational publications which was held in the office of the Secretary-General of the United Nations, to develop a program for presenting factual information about the United Nations to students and teachers in schools and colleges throughout the United States.

Utilization of Office Materials

Information on educational problems was provided writers from leading national magazines. Two articles by the Commissioner attracted wide attention and during the course of the follow-up permitted the dissemination of information on educational matters. Assistance was rendered President Truman's Famine Emergency Committee through liaison with nongovernmental educational organizations, publication of material in SCHOOL LIFE, and arranging for student listening throughout the country to a Nationwide radio program in which Commissioner Studebaker participated. The Section collaborated with a number of government agencies in an important "back to school" drive during the fall of 1945. Approximately 50 news releases relating to Office of Education publications and activities were prepared and issued.

Distribution of Information and Publications

During the year 196 separate jobs of printing and processing were distributed to carefully selected mailing lists. Approximately 23,000 incoming mail requests were answered and responses made to 9,000 telephone inquiries.

Graphics

The total number of assignments completed by the Graphics Unit follows: Illustrations and lay-out format for 269 publications, 29 exhibits and posters, 541 charts and maps, miscellaneous, 63. Reviewing, organizing and classifying the 4,600 educational photographs comprising the office photographic library improved the effectiveness of their use in publications throughout the country.

Editorial

This unit handled a total of approximately 1,000 different items including 192 separate printing jobs. The editorial work varied in complexity and size from a 373-page manuscript to the preparation of a three-fold leaflet. A total of almost 4,000 separate printed pages were edited. The titles include 30 bulletins, 10 issues of SCHOOL LIFE, 18 issues of HIGHER EDUCATION, 2 pamphlets, 3 leaflets, 80 forms and 55 miscellaneous items.

In addition to the foregoing and as a special responsibility of the section, part IV of the Educational Directory, Educational Associations and Directories, was prepared and edited.

The complete list of publications which came off the press during the 1946 fiscal year is as follows:

Publications Off the Press During 1946 Fiscal Year

Bulletins, Pamphlets, Leaflets, etc.

School Census, Compulsory Education, and Child Labor. (Bulletin 1945, No. 1.)
More Firepower for Health Education. (Bulletin 1945, No. 2.)
Education in Training Schools for Delinquent Youth. (Bulletin 1945, No. 5.)
The Place of Visiting Teacher Services in the School Program. (Bulletin 1945, No. 6.)
Introducing the Peoples of the Far East. (Bulletin 1945, No. 7.)
Higher Education Looks Ahead. (Bulletin 1945, No. 8.)
The Use of Training Aids in the Armed Services. (Bulletin 1945, No. 9.)
Education in Chile. (Bulletin 1945, No. 10.)
Report on the Cultural Missions of Mexico. (Bulletin 1945, No. 11.)
Curriculum Adjustments for Gifted Children. (Bulletin 1946, No. 1.)
Proposals Relating to Statistical Functions of the United States Office of Education. (Bulletin 1946, No. 2.)
Offerings in the Field of Guidance and Personnel Work in Colleges and Universities, Summer 1946. (Misc. No. 3162.) (Rev.)
What Every Teacher Should Know About the Physical Condition of Her Pupils. (Pamphlet No. 68.) (Rev.)
Residence and Migration of College Students. (Pamphlet No. 98.)
State Plans for Financing Pupil Transportation. (Pamphlet No. 99.)
School Bus Drivers—Current Practices in Selection and Training. (Pamphlet No. 100.)
Good References—School Finance. (Bibliography No. 75.)
Good References—The Local Board of Education. (Bibliography No. 76.)
Federal Government Funds for Education 1942–43 and 1943–44. (Leaflet No. 76.)

Biennial Survey of Education

Statistics of Public School Libraries, 1941–42. (Vol. II, Ch. VIII.)

Educational Directory, 1945–46

Federal, State, and County Education Officers. (Part I.)
City School Officers. (Part II.)
Colleges and Universities. (Part III.)
Educational Associations and Directories. (Part IV.)

Miscellaneous

Annual Report of the United States Office of Education, 1945.

Expenditures Per Pupil in City Schools 1943–44. (Statistical Circular SRS–12.2–026.)

Job Instruction Training for Supervisory Personnel in Sales Merchandising Organization.

Open Doors to Children—Extended School Services.

Radio Bibliography, 1945.

Family Contributions to War and Postwar Morale Series:
  (Nos. 1, 2, and 3 of this series were published the previous year.)
  We Carry On. (No. 4.)
  First Days at Home. (No. 5.)
  Catching up With the Children. (No. 6.)

Vocational Education

Fitting and Selling Shoes, Business Education Series No. 16. (Vocational Division Bulletin No. 230.)

Selection of Students for Vocational Training. Occupational Information and Guidance Series No. 13. (Vocational Division Bulletin No. 232.)

Training School Bus Drivers, Trade and Industrial Series, No. 61. (Vocational Division Bulletin No. 233.)

Vocational Education in the Years Ahead, General Series No. 7. (Vocational Division Bulletin No. 234.)

Proceedings of Sixth National Conference of State Supervisors of Occupational Information and Guidance, Occupational Information and Guidance Series No. 14. (Vocational Division Bulletin No. 235.)

Training Restaurant Sales Personnel, Business Education Series No. 15. (Vocational Division Bulletin No. 222.) (Rerun.)

History of Agricultural Education of Less Than College Grade in the United States, Agricultural Education Series No. 55. (Vocational Division Bulletin No. 217.) (Rerun.)

Periodicals

SCHOOL LIFE (10 issues—October 1945–July 1946, inclusive).

HIGHER EDUCATION (18 issues—September 1, 1945–May 15, 1946, inclusive).

Reprints

Reprints from SCHOOL LIFE:
  A Supplement to 500 Books for Children (October 1945).
  Pan American Club News No. 6 (October 1945).
  That Civilization May Survive (October 1945).
  Health Needs of School-Age Children and Recommendations (November 1945).
  International Exchange of Teachers, Legal Aspects (December 1945).
  Interest Measurement—Questions and Answers (December 1945).
  Disposal of Surplus Property to Educational Institutions (January 1946).
  Educational Systems of the Netherlands East Indies (January 1946).
  Services to Negroes (January 1946).
  China—Selected References for Teachers (February 1946).
  UNESCO—Design for Waging Peace (February 1946).
  Recreation and Leisure Time Activities in the School Program (March 1946).

Teaching Aids Available from Federal Government Departments and Agencies (April 1946).
National Council of Chief State School Officers (April and May 1946).

Reprints from EDUCATION FOR VICTORY:

The Netherlands East Indies (May 3, 1945).
Federal Cooperation Rather than Federal Control Should be the Means Used to Improve Education in the States (May 3, 1945).
Union of Soviet Socialist Republics—Selected References (May 21, 1945).
Why Education for Inter-American Understanding (June 4, 1945).
Appraisal of the Food Production War Training Program (June 4, 1945).
War Training Program Brought to Close (June 20, 1945).

Reprints from HIGHER EDUCATION:

Salaries in Institutions for Higher Education, 1941–42 (November 15, 1945).
Regulation for Surplus Property Disposal to Educational Institutions December 1, 1945).
State Educational Agencies for Surplus Property (January 1946).

Office of Education Library

The library continued to serve its usual clientele of Office specialists, research workers, and personnel of other Government agencies. However, the nature of the requests received reflected a transition from the war-centered activities of the past few years. Although numerous requests continued to come in from the War and Navy Departments, expansion of such agencies as the Veterans' Administration brought additional calls from members of their staffs or from persons referred by them. Increased enrollments in graduate schools brought additional requests for information on theses completed in various subject fields. College catalogs and other references on institutions of higher education were consulted by both prospective students and prospective members of the faculties, while the representation of new fields of specialization in the Office brought new demands for materials and service. The year was also marked by the development of a plan of organization and other activities, administrative in character, designed to facilitate the program and services of the Office of Education.

Operations of the Library

Acquisitions.—During the past year 8,000 separate publications were added to the collections, increasing the holdings of the library to approximately 325,000 items. Publications were received by purchase, gift, and exchange, and represented books in education and related fields, periodical titles, textbooks, school reports, courses of study, theses, university and college catalogs.

Selection of books to be ordered, requested on exchange, or as gifts to the library required careful and continuous checking of the regular trade and subject bibliographies. Progress on the acquisition of needed foreign educational literature was made during the year particularly through the services of the State Department, which requested copies of reports and year books of Ministers of Education and catalogs and other publications of institutions of higher education throughout the world.

Cataloging and processing.—A total of 6,261 volumes were cataloged during the year, involving the preparation and filling of 26,000 cards. With the additional help available during the fourth quarter it was possible to make some progress on the arrears of uncataloged material, particularly in the foreign collection. However, this represented only a small fraction of the work still to be done.

The cataloging department continued to furnish original copy in certain categories of materials for cards to be printed by the Library of Congress, supplying information for approximately 200 titles during the year.

Reference and loan services.—Continued publication of the bimonthly New Book List served to bring to the attention of specialists the materials added to the library which were relevant to their work. With additional clerical help available during the last quarter, some progress was made in eliminating arrears of work on shelving and rearranging of the collections which have accumulated through the years.

The statistics below indicate the extent to which facilities of the library were used during the year.

Persons using facilities of the library	9,310
Circulation of books outside the library	6,721
Books used in the reading room	25,399
Telephone reference calls	7,864
Answers to reference inquiries received by mail	1,200
Interlibrary loans (included in 2 above)	2,216
Books borrowed from other libraries	112

Bibliographical service.—The end of the war and the expansion of the United State Office of Education were reflected in the increased number and in the type of requests for bibliographical service in 1945–46. The interest in educational reconstruction abroad and the return of students to the study of education in the United States led to many inquiries on specialized topics and to requests for lists of references in varied areas of education.

The bibliographical service of the library aims to relate the resources of the library to the work of the specialists in the Office and to maintain a constant flow of pertinent literature to members of the professional staff and to furnish information and bibliographical assistance as needed. In addition to serving the Office of Education, bibliographical assistance was given to many others in the field of education, who referred questions to the library. These questions, concerning historical records or current problems, frequently require extensive bibliographical research. Approximately 250 letters were answered with information on special subjects and lists of references.

An annotated list of new books and pamphlets was prepared monthly for publication in School Life. A selected list of reference books for a teachers college in Korea was compiled under the following subjects: Encyclopedias, dictionaries, literature, science and technology, general science, law, agriculture and gardening, transportation and communication. The library continued to cooperate with the Library of Congress by furnishing a quarterly annotated bibliography for inclusion in Post War Problems: A Current List of U. S. Government Publications.

Bibliographical service on theses and courses of study.—Although it was not possible to publish the Bibliography of Research Studies in Education because of the lack of printing funds, the library continued to collect and tabulate information on theses in education completed at colleges, universities, and professional schools during the year. The files now contain unpublished data on approximately 15,000 theses completed since 1940. Because this information is available only in the Office of Education Library, it is necessary for graduate students and research workers in education to write or come to the library for lists of studies completed in various fields. Approximately 200 requests of this kind were filled during the year.

A total of 320 theses were received increasing the library's collection to 6,794 volumes representing 76 institutions. Receipt of approximately 700 additional courses of study added considerably to the strength of the library's collections in this area. Information on theses and courses of study was made available through the publication of selective lists in School Life. Typewritten lists were prepared in answer to specific requests received by mail.

Administration of the Library

Reorganization of the library.—In order to be sure that personnel decisions which had been pending appointment of a librarian would be in line with future requirements, the development of a plan of organization for the library commensurate with the total program of the Office was begun.

This plan, completed in February 1946 and incorporated into the organization chart for the Office provides for a library staff of 21 professional and 19 clerical and subprofessional positions. Present status of the library in relation to this plan is indicated by the fact that appropriations for 1945–46 provided for 10 professional positions and 1 clerical position.

Following approval of the tentative organization plan, job descriptions for the professional positions were prepared and submitted to the Civil Service Commission for allocation. Requests for allocations of the clerical and subprofessional positions will be made during 1946–47.

Changes in the professional staff involved the resignation of a reference librarian and a cataloger, both to accept other positions, and the appointment of the chief librarian and reference librarian.

Survey of acquisitions.—A survey of current production of books and other materials in education and related fields was undertaken as a basis for developing a plan for determining the library and bibliographical needs of the Office. The survey, completed in June 1946, contains comprehensive and detailed estimates of the quantity of material of various kinds which would be of possible use in the program of the Office, recommendations as to the number or percent which should be acquired currently, and the estimated number which would have permanent research value. The study revealed, for example, that it would be necessary for the library to acquire approximately 28,000 items annually to provide complete support to all phases of Office of Education operations. Of this number, approximately 19,000 should be incorporated into the collections as permanent acquisitions. During the year 1946–47 it is expected that further discussion of the problem with the library committee and with specialists in the Office will lead to the establishment of an acquisition policy for the library which will meet the needs of the Office and provide a basis for determining budget requirements. Data presented in the study will be useful also in working out cooperative agreements with other research libraries for the acquisition of various categories of materials.

Relations with other libraries.—During the year arrangements were completed with the Library of Congress whereby the Office library will receive publications as follows: From their duplicate and unprocessed collections, textbooks and other materials which are within the scope of the Office of Education's activities; of second copyright copies, all elementary and secondary textbooks, and materials in the fields of religious education, school administration, and teaching of various subjects; and when not needed in their reference collections, second copyright copies of college textbooks and texts in the fields of educational psychology and philosophy of education. (These arrangements are described in the following references: Library of Congress General Order No. 1257 of June 25, 1945; Commissioner's letter to the Librarian of Congress dated December 28, 1945; and letter of January 14, 1946, from the Librarian of Congress to the Commissioner.)

Administrative Management and Services Section

During the year the Administrative Management and Services Section supplied staff assistance to the Commissioner, division heads, and specialists in the following fields of activity.

A. Budget preparation and planning.
B. Fiscal services, including procurement and property.
C. Personnel.
D. Mails and files.

Within the limits of available staff the section has successfully made some important contributions to the operations of the Office. These included the following activities:

1. Development of a plan for programming the work of the Office was initiated last spring. Many preliminary discussions were held and a general plan was agreed to in the last fiscal year. The plan will be developed further, however, in the next fiscal year.

Briefly, the plan contemplates a submission from each division head on the manner in which the divisional program will be undertaken during the fiscal year 1947 as well as a projected plan of the divisional program for the fiscal year 1948. While the initial steps in this program have been completed, much remains to be done in making further refinement to provide the Commissioner with a means of bringing about effective administration and coordination of the work of the Office.

2. Early in the fiscal year 1946 a program was started to classify all positions in the Office to bring them into conformity with the organizational plan of the Office. The classification pattern was fully developed during the past year and the positions have been allocated in accordance with the plan of organization.

Members of the staff worked closely with the Civil Service Commission in the development of registers from which candidates for positions in the Office were to be selected and assisted in the preparation of qualification standards to be followed when changes in regulations permitted the Office to select and make appointments pending the establishment of registers.

3. At the close of the fiscal year a review of the mails and file practices in use by the Office was initiated and data were obtained that will be helpful in developing uniform procedures. Pursuant to an agency-

wide program, a records inventory and appraisal survey was conducted and the results were reported to the agency. This survey involved a review of the records located in all offices throughout the Office and information indicating the number of copies, approximate linear footage involved, dates, frequency of use, and recommended manner of disposition was obtained.

4. The staff has spent considerable time during the past year in assisting professional staff members engaged in special programs such as surplus property, veterans' education, etc. The nature of these programs involved constant changes in plans. Organization arrangements and operations presented unusual difficulties and required more than the normal time expected of the staff working on regular Office programs.

INTERNATIONAL EDUCATIONAL RELATIONS

The International Educational Relations Division carries on the work of the former Division of Comparative Education and of Inter-American Educational Relations. Its objectives are the development of better international understanding and the furtherance of more effective international cooperation. It seeks to attain these objectives by services to schools and teachers of the United States and of other countries through the following programs.

Exchange of Educational Personnel

The Exchange of Educational Personnel Program includes the exchanges of fellows and professors under the Buenos Aires Convention for the Promotion of Inter-American Cultural Relations, teacher trainees from the other American Republics, language teachers, the provision of information on teaching positions in the other American Republics, and the interchange of teachers between Great Britain and the United States.

A total of 30 graduate students from 12 of the other American Republics were in the United States under provisions of the Buenos Aires Convention. These students were enrolled in 22 universities and pursued programs of study in 27 different fields of specialization. Activities of the division included assisting in the selection of candidates from the other American Republics, recommending appropriate personal adjustments to a foreign country, assisting in registration and housing, providing continuous counsel and evaluation of progress, and making arrangements for paying monthly allowances to the students and teacher trainees.

In cooperation with the Department of State, the Division also assisted in the selection of United States graduate students for study in the other American Republics. Nine awards were made and four alternates were chosen.

A program was inaugurated in August 1944, in cooperation with the interdepartmental committee of the Department of State for the education in the United States of teachers from the other American Republics. Five teachers from four of the other American Republics have come to this country to pursue study in a particular field of education at an appropriate educational institution, to observe in our schools, and to confer with specialists in their field of learning.

The division again carried on the selection and notification of 96 teachers of Spanish from our schools who attended the Spanish Language Institute in Mexico City. Sixteen teachers of English from 7 of the other republics were invited to this country. Each teacher became an active participant in the Spanish teaching of a United States school or college, served as interpreter of the culture of his country before community groups, visited a number of schools en route, and attended a special course in the teaching of English at an outstanding institution of higher education.

The division maintained an active file of persons interested in securing teaching positions in other areas of the world. Panels of applicants for positions have been selected for the Inter-American Schools Services of the American Council on Education, the Department of State, and others. Assistance was also given the Department of State in securing professors to go to universities in other countries.

The Division was responsible for the administration of the program for the interchange of teachers between Great Britain and the United States. Under this program, 74 teachers from the United States changed places with 74 teachers from Great Britain.

Basic Studies of Education in Other Countries

During the year, the preparation of studies of educational systems in Central and South America, under the sponsorship of the Interdepartmental Committee on Scientific and Cultural Cooperation was continued. Final reports were completed for Colombia, Chile, Ecuador, El Salvador, Guatemala, Haiti, Nicaragua, and Peru. Field work was done in Panama and Venezuela. Preparation of a report on Brazil was continued.

Preparing Instructional Materials

Requests from teachers in the field as well as from the lay public for curriculum materials relating to countries outside the United States, UNESCO, United Nations, and international relations generally, continued to be exceptionally heavy during the past year. In an effort to meet these demands the loan packets service on Latin-American countries was revised and enlarged. At present packets for 20 subject fields, such as instructional materials, social studies, club organization, and higher education have been developed. Last year about 3,000 of these packets were sent to teachers free upon request, except for return postage. Similar packets on Far Eastern countries were revised but have not yet been circulated. Annotated lists of references on all Far Eastern countries were prepared and mailed free of charge upon request.

About 600 books, charts, and other pieces of instructional material were selected and prepared for use in the Department of State's cultural centers situated in 10 Latin-American cities. The books selected were largely descriptive of United States history, geography, literature, and the teaching of English as a foreign language.

Through the Radio and Transcription Exchange of the Office a number of sets of 16-inch transcription recordings dealing with various foreign countries were supplied on a loan basis to schools and other agencies which requested such service.

A large number of educators from all parts of the world came to the Division for information and help on educational problems.

Consultant Services

Consultant services developed significantly during the past year. Ten members of the division staff served as speakers, resource leaders, and consultants to more than 100 university, college, and professional meetings, institutes, conferences, and work shops in the United States. In connection with international educational organizations, various members of the staff performed such services as the following:

1. Technical expert, United States delegation to United Nations, Educational, Scientific, and Cultural Organization, London, November 1945.
2. United States representative on Education Committee, UNESCO, London, May 1946.
3. United States delegate, Ninth International Congress on Public Education, Geneva, Switzerland, March 1946.
4. Member of Education Mission to Japan, February–March 1946.
5. Consultant to War Department, United States Military Govment, Germany, June 1946.
6. Consultant to War Department on selection of educational personnel in occupied areas.
7. Consultant services to Korean Educational Mission sent to the United States by the United States Military Government in Korea. The Near and Far Eastern section of this division prepared a list of suggestions on educational recommendation and development of Korea for the Korean Educational Mission, the United States Department of State, and the United States Military Government in Korea.
8. Services as observer-advisers to the World Conference of the Teaching Profession at Endicott, N. Y., August 1946.
9. Consultation services to more than 1,000 educators of other countries by correspondence, and to more than 400 who came to the Division in person for information and help on educational problems.

Evaluation of Credentials

The number of requests for the evaluation of foreign academic credentials reflects an increasing utilization of our educational resources by foreign students as well as the expanding influence of our schools. In the four fiscal years ending June 30, 1943, 1944, 1945, and 1946, the total number of requests made of the Office of Education for evaluation of credentials was respectively 687, 813, 909, and 1,466. An additional indication of this increase in requests for interpretation of foreign academic credentials is found in a comparison of the statistics for the months of June, July, and August of 1945 and 1946. The number of requests for these 2 years were respectively, for June, 50 and 153; for July, 62 and 183; and for August, 83 and 156. Thus in the summer period of 1946 there were three times as many requests as in the corresponding period of 1945.

In the fiscal year ending in June 1946, there was no significant change in the number of credentials coming from Latin America. From the British Empire and Europe the number was double that of the previous year, and for the Near and Far East the number was about three times that of the preceding year.

Quite naturally these requests have a wider distribution among our educational institutions. The number of institutions making requests for evaluations in the fiscal year ending in June 30, 1944, was 128; the following year the number was 178; and in the fiscal year ending in June 1946, the number reached 275.

Credentials submitted for evaluation were in more than 30 different languages, for the translation of some of which it was necessary to seek the aid of other agencies and in a few cases of private individuals. The credentials of a given student varied from a few lines to many pages. In some of the cases the evaluation involved but a few minutes and in other cases it called for many hours of research.

The Language Program

Assistance to teachers of English, Spanish, Portuguese, and French has been continued through projects stressing international understanding and cooperation. The important role of language study in interpreting American civilization to other nations as well as other cultures to our own people has been emphasized.

During the year approximately 250 instructors and supervisors of English, both national and foreign, visited the Office, where they consulted with staff members and received the specialized publications prepared and distributed by the Division. Written requests for information and counsel from more than 300 additional persons received attention.

About 200 new texts for the teaching of English as a foreign language were acquired for the use of Office of Education personnel, visiting teachers, and persons from other Government agencies. An additional collection of 600 books dealing with outstanding aspects of American life and culture and the teaching of the English language was assembled and turned over to the Department of State for use in the cultural institutes it maintains in Latin America.

Throughout the year the Division acted as technical advisor for the District of Columbia Public Schools Orientation Center for Foreign Students and Trainees. Under a loan arrangement with the Inter-American Educational Foundation, one specialist spent several months in South America lecturing and teaching in summer English institutes for Brazilian teachers of the language. Staff members participated in conferences on the preparation of textbooks and tests for foreign students of English. The manuscripts of three new English texts for Spanish-speaking secondary school students were read critically for the Inter-American Educational Foundation; descriptive bibliographies of texts and teaching materials were prepared and articles on problems and techniques of English teaching were reprinted and widely distributed.

Services to Spanish teachers have included answering several thousand requests for information and material on a wide variety of subjects pertaining to the teaching of Spanish at all grade levels, from teachers in every State and Puerto Rico and from educators in the other American republics.

Contacts have been established with the cultural attachés of Spain and the Latin-American republics with a view to improving the linguistic and informational service of the Division. For one month, March 15 to April 15, 16 Latin-American English teachers, brought to the United States under a special program, served as teaching assistants and informants in high schools and colleges, following arrangements made by the Spanish language specialist.

Through the Division, and upon the recommendation of chief State school officers and other school administrators, 96 teachers of Spanish from 34 states and Puerto Rico were selected and registered for the Spanish Language Institute held June 25 to August 5 in Mexico, D. F. The Division furnished counsel during the planning of this course and later supplied a resident consultant for a fortnight of the 6-week session in Mexico. Service on language-teaching methodology and materials was made available to a large number of teacher-education institutions throughout the country. Articles and news notes were contributed regularly to Hispania, the official journal of the American Association of Teachers of Spanish and Portuguese, and to other educational reviews.

The Division provided professional advice and instructional materials on the teaching of French and Portuguese in answer to numerous requests and assisted several Brazilian teachers in finding teaching positions in the United States. Loan packets on Brazilian history, art, geography, and current periodicals were assembled and mailed to interested persons. Student correspondence between United States schools and many European and Latin-American educational institutions was facilitated.

AUXILIARY SERVICES

Service to Libraries

The function of the Service to Libraries Section of the Auxiliary Services Division is to assist State and local communities in achieving the full potentiality of service for their libraries. During the war period, the essentiality of adequate library facilities received noteworthy recognition. The armed forces, realizing the importance of an informed personnel, maintained library systems to an extent never matched before; the Department of State embarked upon an extensive program of overseas libraries to present unbiased information about the United States to the citizens of foreign countries; and the wartime State and Federal agencies found local libraries effective media for the dissemination of basic facts about current problems. In peace, libraries can play just as important a role in the education of all ages and all classes of our population, provided these institutions are adequately supported and administered; and it is to this latter task that the Service to Libraries, within the limitations of an inadequate staff and budget, has been devoting its research, bibliographical, consultative, and informational activities.

The extent of current inadequacies in library service throughout the United States is evident from the fact that:

(1) At least an estimated 80 percent of the elementary and secondary public schools have inadequate library service or no library facilities at all.

(2) Over 50 percent of the college libraries are operating on inadequate budgets and with insufficient staffs.

(3) About one-third of the population has no public library facilities and another third has only inadequate service.

In its attack upon these deficiencies, Service to Libraries undertook during 1946 such activities as those which follow.

Statistics and Research

Statistics on libraries are used not only by research workers but also by administrators and governing bodies. The following inquiries answered during a short period of time give an idea of the practical uses made of the library data collected by the Office:

What are the per capita expenditures for public library purposes, the per capita circulation, and the size of library staffs in 20 large cities? (From a large municipal library for use at a budget hearing.)

What proportion of the budget is spent for books as compared for that spent for periodicals in university libraries? In liberal arts college libraries? In large public libraries? In medium-sized libraries? (From a Federal department preparing a budget for overseas libraries.)

How many professional librarians are currently employed in service libraries? In college libraries? In school libraries? (From the United States Civil Service Commission.)

What are the total book resources, the circulation, and the expenditures of the public libraries in each of the cities with populations over 100,000? (From the editor of a standard annual reference book.)

What amounts do cities with population ranging from 10,000 to 15,000, and having reasonably good library service, spend for salaries and for books? What is their expenditure per capita and how many books per capita do their public libraries contain? (From a Midwest city library for use in an appropriation hearing.)

The proved usefulness of Office of Education library statistics is found in the planning publication of the American Library Association, *College and University Libraries and Librarianship*, which states "The publication of *College and University Library Statistics, 1939-40*, was an event of real importance in the college library field."

Another compilation, *Statistics of Public-School Libraries, 1941–42*, distributed in the early fall of 1945, has been widely used for many purposes: For example, by State supervisors of school libraries to help raise standards of service, by school accrediting associations to assist in revision of standards for member schools, and by publishers to determine potential markets for children's library books.

In cooperation with the staff of the Research and Statistical Service, the public library specialist has had a major responsibility in a Nationwide collection of public library statistics covering the fiscal year ended in 1945. These data were intended as a basis for tabulations and interpretations to be published in the series of library statistical compilations issued periodically by the Office of Education since 1870.

In order to keep the library statistical program adjusted to the needs of the profession, the Commissioner invited a group of library specialists to Washington early in March to discuss problems and make recommendations. These conferees submitted a series of proposals covering the items to be collected, the frequency of collection, and the types of libraries: Municipal public, county public, school, college and university, government, and special.

The public library specialist, jointly with other staff members in the Service to Libraries Section, has assembled data on the legal authority, organization, administration, and activities of State library agencies, intended for publication in a manual now being prepared to assist State library authorities in plans for legislative action. The specialist for school libraries continued research in the field of lay-outs, equipment, and furnishing of school libraries. This staff member also gave consideration to the factors involved in desirable library service to children and young people.

Bibliographical Services

The bibliography, 500 Books for Children, due to urgent requests for an up-to-date, annotated list of elementary library books from such groups as the Department of Elementary School Principals, was supplemented by publication (in the October 1945 issue of School Life) of the completed portion of a revision which was under way during the year. Reprints of this 1939–45 Supplement to 500 Books were available for wide distribution.

Various unpublished biblographies were prepared in the Library Service Section, such as a list of children's books for use of the Inter-American Education Foundation, a list of books on citizenship for use by the Department of State in Japan, and a list of sources of international information available for use in schools.

During the year the specialist for public libraries furnished the publishers of a standard municipal reference work with a list of recent professional publications on public library administration. The specialist for public libraries, as a member of the Inter-Divisional Committee on Adult Education in the Office prepared for the use of that committee, A Preliminary Working Checklist of American and British Books on the Theory and Methods of Adult Education—Published 1940–1946.

Service to Libraries was responsible for the monthly column, New Publications of Other Agencies, in SCHOOL LIFE, a selected list of Government documents considered to have significance for librarians and teachers. The unit also assumed the major responsibility for compiling an extensive list of books and periodicals to be used by the Korean Education Commission in stocking a teachers college library in that country.

Consultative and Informational Services

Consultative service was rendered by field trips, by office interviews, and by correspondence. The specialist for school and children's libraries participated in a State-wide library institute attended by approximately 100 school and public librarians at the University of

Alabama. This staff representative conducted daily discussions on books and reading for children and young people, and worked also in the field of library materials in the Latin-American workshops being held on the same campus.

At the Library Planning Conference of the Southern Association of Colleges and Secondary Schools held October 18–23 at Atlanta, Georgia, the specialist for school libraries served as consultant. Problems of the conference were standards for the training of librarians and standards for libraries in the member schools. The State supervisors of school libraries at the meeting asked for a discussion of: (1) In-service training of school librarians; (2) initiation of a leaflet on State school library supervision; and (3) development of a clearing house for the activities of State school library supervisors.

Another type of service was carried on in Louisiana at the request of the State Department of Education and the State Library Commission, where discussions were conducted with librarians of school, parish, and college libraries, and with teachers and school administrators. District meetings were held in New Orleans, Winnfield, Shreveport, Monroe, and Baton Rouge.

Work with teachers colleges included contributions to the first annual Eastern Pennsylvania Library Conference at Kutztown and consultative services at the newly organized school for librarianship at the Western Michigan College of Education. Similar services were rendered at an in-service workshop held in Wisconsin under the auspices of the State Free Library Commission, a discussion group on book selection sponsored by the Michigan Library Association, and a workshop for school librarians at the Indiana State Teachers College.

Service to Libraries was represented on the small Library Advisory Council of the Joint Army and Navy Committee. This group was available, upon request, for consultative service in connection with the library programs of the armed forces.

Representative of numerous consultative services of the public library specialist during the year were the following: (1) At the request of its president, a college for women in the District of Columbia was visited and recommendations were made by the public library specialist as to expansion of shelf and seating capacity; (2) jointly with other library specialists in the Office of Education, the specialist for public libraries was consulted on plans for a new site and building for the suburban public library in Maryland; (3) A local civic improvement association in New Jersey requested and was advised as to publications in library science useful in developing community library service; (4) War Department officials were assisted in the selection of reading materials for air base libraries faced with the problem of serving the civilian population; (5) the specialist for public libraries participated in the annual Conference of Eastern College Librarians held at Columbia University in the fall of 1946 and devoted to the immediate postwar library problems of colleges and universities.

The specialist for public libraries, in cooperation with other staff members, has prepared monthly for publication in the Library Service column of SCHOOL LIFE, a review of significant activities of public and school libraries in various States and localities. This information has been based on official data selected for its importance as a useful pattern of library service and as library news of interest to educators.

Consultative service was given also through office conferences and by correspondence with librarians, teachers and administrators from the United States, official visitors from foreign nations, and United States appointees being sent abroad on foreign assignment. Among foreign visitors were included a representative of the newly organized Ministry of Education in Australia, and a representative of the Siamese Government, who spent several months studying the children's books assembled by the specialist for school and children's library work.

Representing Library Interests Nationally

Close cooperation was maintained with national and State library associations. The relationships with the National Relations Office of the American Library Association have been of mutual help. National meetings, governmental and nongovernmental, have been participated in, where library interests are involved and information about developments passed on to school, college, and public librarians. Unfortunately, it has not been possible to perform this service adequately because of lack of staff.

The section has engaged, however, in activities with national organizations. For instance, conferences were held with a representative of the General Federation of Women's Clubs in connection with the latter's proposed program to provide a youth library in every community. As a result of these conferences, the specialist for school and children's libraries prepared a folder on youth libraries which was given wide distribution. This specialist also cooperated with other staff members of the office in preparing a chapter for the current yearbook of the Department of Elementary School Principals. Included among the other national organizations in which the specialist represented library interests were: Association for Childhood Education; Educational Policies Commission; American Association of University Women; American Junior Red Cross, and the National Congress of Parents and Teachers.

At the request of the Illinois State Civil Service Commission, the Service to Libraries Section conducted, for the area around Washington, the examinations for library positions in Illinois. This involved the administering of the written tests and the holding of oral examinations of the applicants. It constitutes a good example of how this national agency can be of practical assistance to State library agencies.

Until the library consultant for surplus property was appointed to the staff of the division in the office responsible for that program, the unit gave considerable time to the problem of surplus army libraries, textbooks, and other materials. It meant contact with Federal officials on the one hand and with the State and local library authorities on the other.

In the light of the present deficiencies existing in our school, college, and public library systems, this function of representing library interests at the national level should be greatly strengthened. It should be performed in cooperation with the activities of other Federal libraries in some cases, but in many instances it should be the special responsibility of the Service to Libraries Section. It will mean carefully planned and executed research to produce or reemphasize guiding principles in the field of library operation and extension.

Educational Uses of Radio

The volume of requests for program materials, informational and advisory assistance, and consultation services received by the Educational Uses of Radio Section during the fiscal year ending June 30, 1946, was approximately double that of the preceding year. The bulk of this demand was directed toward obtaining informational materials and consultation services relating to the production, broadcasting, and use of radio programs and recordings designed to serve specialized educational applications. Increasing specificity in the nature of requests received, along with a noticeable emphasis on instructional methodology and diversified program-utilization techniques indicates wider appreciation and understanding of the potentialities of radio and audio aids in accelerating learning, in broadening its scope, and in promoting its retention.

Script, Transcription, and Information-Exchange Services

During the year, 70 new educational-program scripts have been put into circulation through the script exchange, and the number of recorded educational programs available to educational institutions through the Transcription Exchange has been increased by another 50 programs. These new educational-program acquisitions tend partially to off-set the number of scripts and transcriptions dealing with problems of war-time significance which have been retired from circulation because of sharply-diminished borrower interest. This has tended to keep the volume of script and transcription circulation for the past fiscal year at approximately the same level as that of the three preceding years. It should be pointed out, however, that the demand for educational-program scripts and transcriptions dealing with cultural, scientific, and vocational topics is growing at a more rapid rate than that of new program acquisitions. This is due, in part, to the fact that more schools are beginning to use educational-program scripts and transcriptions, and, in part, to the fact that schools and colleges now in the process of developing new educational FM broadcast stations are turning to the Offices radio section for these program materials.

TABLE 6.—*Services provided by the Educational Uses of Radio Section, fiscal year 1945–46*

Materials or services provided on request	Volume for 1945–46	Volume for 1944–45	Grand total to date
1	2	3	4
Supplementary (informational) materials:			
Radio Manual, Radio Glossary, Handbook of Sound Effects, and Radio-Program Production Aids (all separate publications)	----------	1, 536	57, 164
Production Aids (includes above publications and replaces them)	1, 175	----------	1, 175
Radio Bibliography	3, 096	----------	10, 661
College Radio Courses (a directory of courses for teachers)	1, 850	35	5, 959
Technical Publications (loan circulation)	134	227	6, 418
FM for Education (miscellaneous No. 7)	5, 027	2, 975	8, 002
Standards for College Courses in Radio	2, 000	2, 200	4, 200
State-wide Educational FM Broadcast-System Planning (mimeo.)	1, 015	559	1, 574
Coordinated State-wide Educational FM Broadcast Planning (mimeo.)	625	----------	625
Information Bulletins on Educational-Station Planning (mimeo.)	351	----------	351
Total	15, 273	7, 532	96, 129
Catalogs:			
Fourth-Edition Script Catalog and O. C. D. Script Catalog (dropped)	----------	499	11, 290
Scripts-for-Victory Catalog	125	1, 406	9, 064
Script-Catalog Supplement	95	199	6, 616
Transcriptions-for-Victory Catalog	927	1, 288	8, 955
Transcriptions-for-Victory Catalog Supplement	1, 231	599	1, 830
Totals	2, 378	3, 991	37, 755
Miscellaneous:			
Transcription Circulation (program loans)	2, 481	2, 604	13, 060
Script Circulation (program loans)	6, 329	8, 989	352, 386
F. R. E. C. Service Bulletin (total copies)	49, 166	40, 000	389, 666
F. R. E. C. Program-Listing Service Bulletin	9, 300	5, 198	19, 198
Requests Filled for Technical Advice or Information	502	493	1, 891
States Given Requested FM-System Planning Assistance	10	14	26
Individual Requests Received for one or More Services	16, 438	16, 159	103, 239
Separate Pieces of Out-Going Mail	37, 815	39, 826	Unknown.

The general trend, on the part of schools and colleges, toward developing educational FM broadcast stations has greatly accelerated the demand for information concerning administrative procedures for the planning and development of educational FM broadcasting stations and State systems, the translation of educational-program needs of listeners into scheduled program services, and techniques of educational program production and use. This is reflected in the fact that the demand, for the fiscal year just ended, for informational publications dealing with these subjects, as shown in table 6 was slightly more than double the demand for corresponding materials during the preceding year.

Federal Radio Education Committee Services

A number of changes have occurred, during the past fiscal year, in the membership of the Federal Radio Education Committee. Upon termination of term of office as president of the National Association of Broadcasters, J. Harold Ryan resigned as a member of the FREC, to be replaced by the Association's new president, the Honorable Justin Miller. Similarly, when Harrison B. Summers resigned as director of public service programs for the American Broadcasting Co., his successor, Robert Saudek, replaced him as the American Broadcasting Co. representative on the Federal Radio Education Committee. Edgar Kobak, president of the Mutual Broadcasting Co. was appointed to represent his network as a member of the FREC.

In view of the fact that American Education is presently concerned with redefining its obligations in this period of transition from a period of wartime economy, it is but natural that the membership of the Federal Radio Education Committee should undertake a thoughtful review of its past accomplishments in the light of both continuing problems in the field of education by radio and such new problems as can be anticipated at this time. To this end, the special committee to study postwar activities has unanimously recommended continuation of the FREC, and has outlined more than a dozen new research and service activities that might legitimately be undertaken by the Committee if and when funds can be found to support them. (A proposal to raise the necessary funds through one or more of the educational foundations, as well as through the National Association of Broadcasters, was under consideration at the close of the fiscal year.) Likewise, the special committee to consider possible expansion of FREC membership has suggested names of a dozen new organizations for possible membership in an effort to make the FREC more completely representative of all groups concerned with education by radio. (Action on its report was deferred for consideration until the time of the 1946 fall meeting of the Executive Committee.)

Meanwhile, established FREC services have continued during the past fiscal year. Although demands for copies of the monthly Suggested Radio Programs for Student Listening were approximately doubled those of the previous year, reduced personnel and lack of funds made it necessary to keep the mailing list to a minimum. However, toward the close of the fiscal year, arrangements were made with the publishers of the Scholastic Teacher magazine to print the full program listings as a monthly feature. It is hoped that similar arrangements can be made with other professional educational journals in the interests of extending the circulation of the program listings still further.

Preparation of the annual Directory of College Radio Courses, suspended during the wartime years, was resumed this year in response to demands from students specializing in this field, and from representatives of the radio-broadcasting industry. Returning veterans and their counselors, as well as college student counselors, have commended the FREC for making this useful information available. The total supply of 3,000 copies that were made of the current directory already has been distributed, and new data are now being collected for the next edition. Wartime restrictions reduced the mailing list of the FREC Service Bulletin to slightly under 5,000 names.

Advisory and Consultation Services

Four general types of advisory and consultation service were provided during the past fiscal year in response to the requests received for assistance. Stated in order of amount of staff time expended in meeting these demands, these services were: (1) Assisting State departments of education, colleges and universities, and city school systems in relation to the planning of educational FM broadcast stations and the program services to be offered; (2) providing requested information or advice to individual school systems and teachers in relation to problems of educational-program selection and use, audio-equipment selection and use, and school audio-equipment requirements for specialized applications; (3) participating in meetings and projects involving various aspects of the use of radio in education; and (4) meeting with representatives of national service organizations and of broadcasters to discuss problems of producing programs to serve particular educational applications.

During the fiscal year, direct field assistance in the nature of administrative, procedural, and technical consultation was provided to State educational FM broadcast-system planning bodies in each of 10 different States—Virginia, North Carolina, South Carolina, Georgia, Alabama, Texas, Indiana, Ohio, Connecticut, and Maryland. Assistance of the same kind was also provided to planning bodies in each of four other States through consultations with individuals that were sent to Washington to meet with Radio section personnel. In addition, field service in the nature of participation in State and regional conferences to promote the use of radio in education was provided to a total of 11 different States. As of June 30, 1946, a total of 31 States were known each to be planning the development of enough educational FM broadcast stations to insure substantially State-wide program service, while 12 of these were actively engaged in developing plans for complete State-wide educational FM broadcast systems.

Assistance provided in response to requests for assistance or advice relative to radio-education problems of individual school systems and teachers was of three general types: (1) Sending printed or mimeographed informational materials dealing with the problem specified; (2) providing the requested information or advice by letter; and (3) preparing carefully detailed information pertaining to problems of unique or highly specialized nature.

Requested participation, by members of the Radio Section's professional staff, in special meetings and projects involving the use of radio in education accounted for somewhat over 80 man-days of staff time, and included such kinds of assistance as (1) speaking before teacher groups and meetings of educational and civic organizations concerned with the use of radio in education; (2) participating actively in the work of the Joint Committee of the Office and the Radio Manufacturers Association on Standards for School Audio Equipment; (3) taking part, as discussion leaders and special-problems consultants, in the Ohio and the Wisconsin State Radio-Education Planning Workshops held during July and August of 1945; and (4) serving on the advisory committees of professional radio-education organizations such as the Institute for Democratic Education (New York City) and the School Broadcast Conference (Chicago).

Joint Study of School Audio Equipment Standards

The special committee which was created, in June 1944, under joint auspices of the Office of Education and the Radio Manufacturers Association to study problems school people encounter in the use of various kinds of radio and sound-amplifying equipment, and to develop recommendations as to design, construction, operative characteristics, and performance standards for equipment of this kind, completed an exhaustive study of central program distribution systems and related accessory equipment in the schools. This report is being published at the expense of the Radio Manufacturers Association. Scheduled for similar study during the coming fiscal year are radio receiving-sets for classroom use, together with equipment for making and playing recorded programs.

Liaison Services

Liaison relationships that have been maintained by members of the Radio Section's professional staff during the past fiscal year include the following:

1. Continuing promotion of mutual understanding (of problems, motives, and needs) between educators and broadcasters, through the medium of the Federal Radio Education Committee.
2. Direct liaison with the National Association of Broadcasters and with "key" personnel of the radio networks and independent stations, aimed at keeping commercial broadcasters continuously informed of developing trends in the use of radio in education.
3. Direct liaison with the Association for Education by Radio, the National Association of Educational Broadcasters, the National Educational Association, and other professional organizations and groups of educators concerned with the use of radio as an educational medium.
4. Direct liaison with the Federal Communications Commission aimed at keeping that body continuously informed of the status and directions of planning for noncommercial broadcasting by educational institutions and State departments of education, in an attempt to make sure that the Commission fully understands the needs, problems, and motives of existing and prospective educational-station licensees.
5. Direct liaison with the Radio Manufacturers Association and with other trade organizations representing manufacturers, distributors, and retailers in this field, aimed at promoting a clearer understanding, by the radio manufacturing industry. of specific educational applications and conditions of operation for which they will need to provide in the design, construction, and installation of equipment items they produce for the school market.
6. Direct liaison with the Institute of Radio Engineers and with professional radio consulting firms, aimed at the continuous accumulation of NEW technical information pertinent to the designing, production, and use of new communications—equipment items for educational applications.
7. Direct liaison with service, religious, and professional groups and organizations interested in the production and/or use of educational radio programs and transcriptions. (Groups of these kinds with which close working relationships have been maintained over the past fiscal year include various religious groups, educational foundations, and a variety of national organizations such as the Association of Women Directors of the National Association of Broadcasters, the Association of Junior Leagues of America, the Girl Scouts, the Intercollegiate Broadcasting System, and Town Hall, Inc.)

Visual Aids for War Training

With the end of the fiscal year, 1946, the Division of Visual Aids for War Training completed its wartime production program. The division was created in February 1941 to produce visual aids specifically designed to expedite the training of war workers.

During the 5 years of its existence the division produced a total of 457 visual-aids units, which included 457 sound motion pictures, 432 silent film strips, and 457 instructors' manuals. It was planned that the sound motion picture, silent filmstrip, and instructors' manual would be used as a unit of visual materials with each complementing and supplementing the other.

These visual aids units were produced in the basic areas of wartime training where the shortages of manpower were most critical and where visual materials could make the optimum contribution. The primary purpose was to assist in training men by providing an authoritative film demonstration which used all the unique techniques of visual presentation to present the essential facts, develop an understanding of the basic principles involved, assist in developing desirable attitudes and appreciations, and to provide a picture, which the trainee would imitate, of a skilled operator performing a job.

Extent of Production

The following table indicates the total number of visual-aid units produced in the various subject-matter areas:

Subject areas	*Total number of productions in each subject*
Machine shop work	125
Aircraft work	77
Precision wood machining	41
Shipbuilding skills	40
Electrical work	28
Engineering	23
Problems in supervision	22
Automotive operation and maintenance	19
Farm work	18
Refrigeration service	15
Nursing	14
Foundry practice	14
Plastics	10
Optical craftsmanship	6
Welding	5
Total	457

Each of these general areas of subject matter included many different types of work. For example, the 125 units in machine shop work include the following:

Subject areas	*Total number of productions in each subject*
Basic machines	4
Precision measurement	8
Carbide tools	5
Blueprint reading	5
Bench work	10
Operations on the lathe	17
Operations on the drill press	5
Operations on the turret lathe	7
Operations on the milling machine	15
Operations on the metal cutting band saw	2
The use of single point cutting tools	2
Operations on grinding machines	23
Operations on the horizontal boring mill	6
Operations on the vertical boring mill	3
Operations on the shaper	3
Operations on the broaching machine	3
Operations on the planer	2
Operations on the gear hobber	5

Each of these series in turn consisted of film demonstrations of a graded series of specific jobs.

Each of these general subject matter areas was selected by the Office Committee after a careful study was made of the areas where manpower shortages were critical and in terms of the continuing usefulness of the material in peacetime training. These subjects were then submitted to the War Manpower Commission for approval. In the meantime, staff members prepared job break-downs and treatment synopses.

Contracts Awarded

Production was undertaken by commercial producers working under a production contract awarded on a competitive-bid basis. Altogether 35 commercial producers located in all parts of the country assisted in the production program of the division. The commercial producers were guided and assisted in their work by a team of Office specialists; one a specialist in the use of visual techniques in education and the other a specialist in the subject matter of the film under production.

The production of motion pictures in machine-shop work introduced new problems of accuracy and authenticity, for it introduced a new dimension. An operation on a machine could be completely accurate in terms of the operations and the end result, but could be quite undesirable in terms of the movements of the operator which could be awkward, or unsafe, or inefficient. To make certain that the films were completely accurate and trustworthy instructional materials, a local vocational advisory committee was established in each State to check each step in the production of each series of films at the studio or in the shop of the commercial producer.

The finished visual aids units were sold outright to all training groups interested in purchasing and using them. This policy was followed since it was believed that (1) the films would be most effectively used when they were locally available at the time they fitted best into the course of instruction, (2) the distribution of the films should be achieved at the lowest cost to the Government.

Film Distribution

Following the basic policy of utilizing existing facilities, the distribution of the films was awarded on the basis of competitive bids on a contract. For the fiscal year of 1946 they were distributed by Castle Films, Inc., of New York City.

After the division had been in operation for some time, Congress in making the annual appropriations placed the production on a liquidating basis and provided: "Copies of slides and films hereafter made shall be sold at a price sufficient to pay the whole cost of production of such slides and films." On the basis of estimated sales, it was decided that $5.75 per sound motion picture and $0.35 per filmstrip should be returned to the Treasury Department.

Extent of Sales

The following table indicates the number of prints sold and the moneys returned to the Treasury Department during the fiscal year 1946.

TABLE 7.—*Sales for the fiscal year 1945–46*

Date	Number of—		Money received
	Motion pictures	Film strips	
1945			
July	880	413	$5, 181. 55
August	526	431	3, 175. 35
September	651	1, 556	4, 287. 85
October	564	449	3, 367. 75
November	770	676	4, 664. 10
December	74	28	435. 30
1946			
January	1, 113	1, 085	6, 779. 50
February	304	611	1, 961. 85
March	557	644	3, 428. 15
April	605	750	3, 741. 25
May	254	515	1, 586. 75
June	632	504	3, 810. 40
Total	6, 990	7, 662	42, 420. 50

A summary of the sales during the previous years follows:

Fiscal year	Number of prints sold		Sums returned to the Treasury
	Motion pictures	Film strips	
1941–42–43	28, 112	0	0
1944	3, 038	1, 250	$12, 951. 75
1945	7, 542	5, 907	52, 380. 15
1946	6, 990	7, 662	42, 420. 50
Total	45, 622	14, 819	107, 751. 85

During this same period the armed forces purchased a total of approximately 22,000 prints of the sound motion pictures. Altogether some 67,000 prints of the sound motion pictures and 15,000 prints of the filmstrips have been purchased for use in training. None of the years listed were ever free of various material shortages that tended to make the sales less than the demand.

During the war period the sales of prints (exclusive of the armed forces) were approximately 75 percent to war industries and 25 percent to vocational schools. During the fiscal year of 1946 the averages were changed considerably with approximately 70 percent to schools, 15 percent to industries, and 15 percent to foreign governments. Prints have gone to South Africa, Canada, New Zealand, Australia, China, India, Mexico, Brazil, Chile, and other nations.

In addition to the foregoing production program the division through funds provided by the Office of Inter-American Affairs provided Spanish and Portuguese versions of five of the subjects on the lathe. The division also with funds provided by the United States Public Health Service produced three sound motion pictures dealing with the pasteurization of milk and two films on the techniques of mass radiography. All of these films are distributed within the United States through the present Office of Education distribution contract.

The division through its distribution contract has also made available to educational institutions approximately 400 additional films produced by the armed forces, the United States Public Health Service and the Civil Aeronautics Authority.

Publications

As a part of its wartime production program the division was responsible for the issuance of a catalog of Government films, which listed for the schools the films produced by the various governmental agencies and available for educational uses. The division has also directed the issuance of a complete catalog of the films distributed under its distribution contract, as well as the monthly newsletter describing the films most recently placed on sale. The final report of the wartime activities of the division was given in the Office of Education Bulletin 1946 No. 13, *Training Films for Industry: Final Report of the War Training Program of the Division of Visual Aids for War Training.* This report provides a discussion of the problems of educational film production, and suggests some of the research needed in the field. As a result of the wartime activities of the division there remains as a continuing contribution to vocational training the visual aids units. The large majority of these will continue to be as useful in peacetime training as they were in wartime. The division maintains a library of its own productions, which is available to all Government agencies and visitors for previewing and study. There also remains approximately 20,000 still pictures that represent the original negatives used in the production of the film strips. These stills are being made available to publishers of textbooks and magazines for illustrative purposes. Schools are also requesting copies of these and are using them to develop posters and other classroom aids.

The increasing interest of all types of educational institutions in the field of visual education has been manifested by a constantly increasing demand for assistance in the various phases of production, distribution, and utilization. The division, therefore, in addition to its wartime functions of film production, undertook to make the services of its staff available to consult and advise with educational institutions and industrial organizations, and other governmental agencies.

The period of the war has seen a great increase in the general understanding of the potential role that visual aids can play in education. The widespread and intensive use of visual aids in the training of the armed forces has received wide attention. Furthermore, as the members of the armed forces return to positions of influence in their home communities they are often responsible for developing the interest of the local schools in the more effective use of these new tools of instruction.

As a result of these influences the demand for assistance has increased beyond predicted limits. Schools, business organizations, industrial concerns, governmental agencies, international agencies, and foreign governments are interested in developing a more competent understanding of the applications of visual education. Some assistance has been given on an increasing scale but it is difficult if not impossible to meet effectively the existing demand.

At the present time there exists no complete and authoritative body of statistical data in the field, the training of personnel in the field of visual education is quite inadequate, there is a dearth of good courses in the use of visual aids in the education of prospective teachers, and the general demands for knowledge far exceed the information that is now available. There is a serious need for further study and research of the problems of utilization, distribution, and production.

The war period saw great advances made in the field. It remains for peacetime study to apply the knowledge gained during the war to the problems of education and to conduct the study and research necessary for the continuing development of these new tools of instruction.

SCHOOL ADMINISTRATION

The Division of School Administration realizes that no State or local system or program of education is likely to advance far beyond the vision, the imaginative leadership, the genius for organization, or the resources of technical skill and knowledge which its chief executive officer can bring to bear upon its administration. The primary effort of the division, therefore, has been to make available technical leadership resources which can be provided most effectively at the national level to rapidly improve the quality of educational administration at local levels, and thus to contribute to national strength, security, and prosperity.

The division has been able to meet only a small fraction of the requests and demands from the field for greatly needed services. The very limited staff, however, spread its services over a wide range of important problems and over widely separated areas of the Nation. The work of the staff involved activities of which the following are typical:

1. The maintenance of current comprehensive cumulative files on problems of educational administration, and using same in conducting correspondence, interviews, and committee work.
2. Research for discovering, gathering, organizing, analyzing, and presenting information regarding all aspects of school administration with particular attention to needs, problems, trends, and successful programs of operation involving significant developments.
3. Participation in State, regional, and national conferences, workshops, committee studies, and activities, conventions, meetings, and important activities of all legitimate kinds where problems of school administration of national concern are considered.
4. Consultative services for and participation in surveys of State education systems or selected city or county systems.
5. Field visitation and services to State departments of education, colleges, and other appropriate educational administrative agencies.
6. Publication of leaflets, pamphlets, bulletins, study and survey reports, and by preparing articles for publication by professional magazines.
7. Maintenance of working relationships with, and provision of consultative services for professional and technical organizations and appropriate lay organizations whose activities have implications for school administration.

Work With Chief State School Officers

By constitutional provision in 33 States, and by State statutory law in the remaining 15 States, the chief State school officer has been designated as the head of the public school system. Ordinarily he serves as the chief executive officer of the State board of education. He is responsible for long-range planning and for professional leadership on all matters pertaining to education within his State. He has professional, legal, and official responsibility for influencing public officials of the State in the establishment and maintenance of the State pattern of education and in setting minimum standards for the various local subdivisions.

The chief State school officer exercises his responsibilities through a professional staff known as the State department of education which, as a legally established agency of official State government, is under his general direction. The State department of education must provide broad professional leadership and expert, technical consultative services not otherwise readily available through a local school administrative unit. Probably no official or professional agency is comparable to the State department of education in potential influence for the advancement of education along sound lines.

Poorer and less favored school communities, while retaining local control of their schools, must look to this official State educational agency for a high quality of leadership beyond their local power to provide. They must also look to the State department of education for the establishment and execution of sound policies for the equitable distribution of State funds to provide more nearly equalized educational opportunities throughout the State.

The United States Office of Education maintains a constant, official, direct relationship with each chief State school officer and with each State department of education. In addition, the Division of School Administration has established definite working relationships with the National Council of Chief State School Officers, an organization to coordinate and unify the study and activities of State departments of education on problems of common concern. During 1946 the Commissioner of Education and the director of the Division of School Administration met often with the officers and the executive committee of the organization and served as consultants on most of their plans.

A division staff member was assigned to serve as secretary of the planning committee of the study commission established by the council.

Office of Education specialists from several of the divisions served as consultants to various committees on studies undertaken by the study commission.

The April and May 1946 issues of SCHOOL LIFE carried complete reports of the annual convention, resolutions adopted, reports to the council from committees of the study commission on a wide range of problems, and the policy statements of the National Council of Chief

State School Officers. Reprints of this special material have been made widely available.

The director of the Division of School Administration has been designated as liaison between the council and the United States Office of Education.

General Administration and Business Management Services

In the absence of staff members to be assigned on a full-time basis to give attention to a wide range of problems in general administration and business management, the director has attempted to answer correspondence and provide consultative services on many and varied problems on which there is increasing demand from the field for specialized technical service from the United States Office of Education. Such problems include the organization and functions of State, city, and county departments of education; budgeting, accounting, and reporting procedures; purchasing, handling, distributing and using of supplies and equipment; the pre-service and in-service education of school administrators; special problems of rural school administration and the reorganization of school administrative units.

Pupil Transportation Services

In pupil transportation, as in other fields, 1945–46 was a period of reconversion. During the war, State and local school systems made every effort to provide essential transportation service with minimum interference to the war effort. Bus routes were skeletonized to save tires and gasoline. Old buses were patched up, sometimes at very high cost, to make them last through the war. Bus drivers and school bus mechanics left school transportation in large numbers for activities more remunerative or more directly connected with the war. They were replaced by housewives, highschool boys and girls, and general handy men. Most of the children got to school most of the time, but often under difficult circumstances. The urgency of these problems made it necessary for the Office of Education, as well as many States and local school units, to devote increasing time and energy to the whole area of pupil transportation. In 1945–46 attention was centered on certain of the most pressing problems on which progress must be made to provide safe, economical, and efficient transportation for all children entitled to the service.

Because of the acute need for new equipment it was a foregone conclusion that tens of thousands of school buses would be purchased in the first few years after the war. To make sure that all of these new buses would be the best that the industry could build at moderate cost, there was need for a revision of the national bus standards adopted by a conference of the representatives of all the States in

1939. The Office of Education participated in planning and carrying on a conference which was held at Jackson's Mill, W. Va., in October 1945. From this conference resulted a new set of national school bus standards which are rapidly being adopted in most of the States.

Attention to the pressing problem of the selection, employment, training, and retention of competent and reliable drivers for school buses required much time and intelligent planning in 1945–46. Many States do not yet have adequate standards for school bus drivers and the standards which do exist vary widely from State to State. Less than one-third of the States now have organized programs for the training of school bus drivers. However, a large majority of the States are now actively interested in setting up adequate standards for drivers and in giving them a course of training after they are employed. Many State transportation supervisors have been asking for information on the experience of other States on these problems. To help those who are responsible for formulating programs for the selection and training of school bus drivers, the Office of Education published Pamphlet No. 100, *School Bus Drivers—Current Practices in Selection and Training.*

In 1944 the Division of School Administration initiated a comprehensive survey of pupil transportation to include studies on (1) the legal basis; (2) financing; (3) records and reports; (4) the selection and training of school bus drivers; (5) school bus standards; (6) school bus maintenance; (7) methods of purchasing buses; (8) ownership of buses; (9) insurance; and (10) State and local responsibility. Studies on these problems were scheduled to appear over a period of 3 years. The 1945 National Conference on School Bus Standards requested that the study on pupil-transportation insurance be completed as soon as possible. Since the studies on two of the other problems were in a more advanced stage and since the limited staff working in this field could not issue the study on insurance this year, the research division of the National Education Association was requested to complete the study. This they agreed to do and the Office turned over to them the incomplete data which had been collected on the insurance problem. As a result of the cooperation of the NEA, this study can be issued at least a year earlier than otherwise would have been possible. Other aspects of the study were continued by the Office of Education.

Considerable progress was made in the collection of information for a study on school bus maintenance. A great deal of material concerned with the maintenance of motor vehicles is now available, but much of it either presumes the maintenance of large fleets of vehicles on a commercial basis or the maintenance of vehicles which travel great distances in the course of a year. There is urgent need for setting up procedures which will apply to the maintenance of school transportation facilities ranging from single vehicles to fleets of 100 or more which wear out more from deterioration than from use. Several States have had valuable experiences in setting up such programs and operating them over a period of years and this study will pool these experiences and evaluate them. In this study assistance is being given by an advisory committee composed of persons who have had extensive practical experience in the operation of school bus maintenance programs.

Because of the quick growth in pupil transportation and rapidly changing conditions, many local units which have been operating extensive programs for a period of years have been requesting their own State departments of education to conduct pupil transportation surveys. The Office assists in such surveys insofar as it can be of help to State departments of education in establishing patterns for them. Staff members cooperated this year with several State departments of education in carrying on the field work and in writing up reports for a number of county surveys of pupil transportation.

The Division of School Administration performed two continuing, direct special services designed to assist States in keeping abreast of developments in the field of pupil transportation. First, it continued the practice, begun during the war, of sending periodically to all State supervisors of pupil transportation memoranda which gave information on some late event or development. These memoranda were not sent according to any schedule, but only when it seemed that State supervisors should receive information which would be of assistance to them. Second, the division initiated a packet loan service for supplying to those interested in certain problems in pupil transportation all materials related to those problems published by State departments of education. For example, one packet contains all State laws concerned with pupil transportation and another contains all State published documents and forms relating to procedures in the purchase of school buses. Any State interested in developing procedures to be followed in the purchase of school buses may obtain all existing State publications on this topic simply by writing to the Office of Education. Packets of material related to 18 pupil transportation problems have been assembled and are loaned for periods long enough to permit the borrowers to make full use of the materials.

The division has continued to offer consultative services in the field of pupil transportation. In addition to assistance through correspondence, visits were made to several State departments of education to discuss with appropriate staff members the most pressing problems of their schools in rendering this service. A staff member served as consultant to a pupil transportation conference which was composed of representatives of 11 Midwestern States. In addition to working with the States, the Office continues to cooperate with other organizations and agencies which work with problems related to pupil transportation, such as the National Safety Council, the Safety Commission of the National Education Association, the American Automobile Association, and the Automotive Safety Foundation.

School Finance Services

Reports collected and compiled by the Office of Education indicate that substantial increases were made during the year throughout the country in the amount of funds provided for the public schools. These increases were provided for principally in local school district budgets. Some of these were prepared during July and August of 1945 for the school year 1945–46 and others during the closing months of the fiscal year 1946 for the school year 1946–47. The most important item of expense for which additional funds were provided was that for salaries of teachers. These increases range from small to comparatively large amounts.

Important developments during the year regarding the financing of the public schools are the many proposals voted upon favorably for school district bond issues. School patrons generally have favored a proposal to incur school-district indebtedness, when current funds are insufficient, to improve their school building facilities. Probably in no other time in the history of the country has there been more consideration given by local school districts to school building construction needs and consequently the voting of school district indebtedness for the purpose of borrowing money to finance such construction.

Unusual activity in State and local programs to improve the financial status of schools has been accompanied by increasing requests for information, advice and technical services from the finance section of the Division, during the fiscal year.

In addition to many other important activities, the Specialist on School Finance:

1. Continued the study of State Plans for Financing Education—a State by State study. Completed the description of one additional State plan which was published in the June 1946 number of SCHOOL LIFE. Revised previously prepared descriptions of two other State plans.
2. Completed the work on the report of Federal Government Funds for Education, 1944–45 and 1945–46. (Leaflet No. 77.)
3. Issued Pamphlet No. 99, State Plans for Financing Pupil Transportation.
4. Continued work on the study, Essentials of a Satisfactory Plan for Financing the Public Schools.
5. Took part in several conferences in which State and other school administrators participated in study and discussion of school finances.
6. Served as a member of the Interdivisional Committee on Research and Statistics. This committee was established to:

   Develop recommendations on the general research program of the Office and statistical reporting projects. Advise the Chief of Research and Statistical Service regarding the work of that Service.

School Legislation Services

During the fiscal year ending June 30, 1946, the Division of School Administration carried on through its section on School Legislation a number of studies on important phases of school legislation and rendered consultative services touching many current problems in school legislation. The Office was called upon more than in any previous year to render information and guidance services to interested persons concerned with Federal legislation affecting education. Probably more congressional action relative to education was in evidence than in any other single session in the history of the Congress. Information was constantly requested relative to pending educational measures. The Specialist in School Legislation attended hearings on educational bills before Congress and endeavored to keep abreast of legislative developments affecting education.

In 1945, practically all the State legislatures were in session and there was considerable State legislative action affecting education. A study of this legislation continued throughout the year. The Specialist in School Legislation visited a number of State departments of education in 1946 where important educational legislation was under consideration, deriving useful information on current State legislative developments affecting education, and was available for consultation by officials in State departments of education and representatives of State education associations.

In addition to rendering consultative services on a wide range of problems in educational legislation, the Specialist in School Legislation engaged in a number of projects, which included the following:

1. A review of 1945 State legislative action affecting important phases of education, including a summary of recent State legislation affecting Federal-State educational relations was published in SCHOOL LIFE, January 1946.
2. The Division continued cooperative services in connection with the National Survey of School Transportation, with special attention to State laws affecting the transportation of school children. This project involves an analysis by States of the numerous statutory provisions applicable to the operation and maintenance of State systems of pupil transportation. This study has for its object to ascertain what type of laws governing school transportation seem to produce the most satisfactory results. Satisfactory progress is being made on this important study which will be continued into the fiscal year 1947.
3. Upon invitation from the president of the Association of School Business Officials, the Specialist on School Legislation attended in Pittsburgh a 4-day convention of school business officials and served as consultant to the organization. He addressed the convention on Recent State Legislative Action Affecting the Business Management of Schools, and participated in group discussion of problems in the management of school business affairs.

4. Work has continued on the project of developing a bulletin on the Codification and Improvement of State Laws Relating to Education. This study is designed to serve as a handbook of useful information, suggestions, guiding principles, procedures, classification of subject matter, etc., designed chiefly for the use of those interested in and engaged in improving their State school laws. There is considerable awareness of the need of simplification and recodification of school laws in many States. An increasing number of State legislatures are concerned with this problem. Some of them have authorized such undertakings and have appropriated money therefor. Hence the need of leadership and services of this type from the Office of Education is increasingly in evidence
5. The Specialist in School Legislation completed a manuscript on International Exchange of Teachers—Legal Aspects, which was printed in SCHOOL LIFE, December 1945. This article deals with some of the international legal involvements confronted by a teacher who endeavors to carry on his profession in a foreign country. Considerable interest has been manifested in this field.
6. Work was devoted to the compilation and classification of digests on current State legislation affecting different phases of education. The need for this information is constant and is essential to the rendering of effective consultative services in school legislation by the Office.
7. The Division of School Administration also kept up-to-date classified information on educational measures pending before Congress. A summary of legislative measures enacted by the 79th Congress, First Session, appeared in SCHOOL LIFE, October 1945.

Considerable attention of the Specialist on School Legislation was devoted (1) to personal interviews with State and local school officials and representatives of Federal agencies with respect to current problems and needs in educational legislation; (2) to various divisions and staff members of the Office in reference to legislative problems in their respective fields, and (3) in conducting the wide range of correspondence relative to school legislation.

School Plant Services

During the fiscal year 1945–46, the Division of School Administration worked with State and local school systems, institutions of higher learning, and professional and trade associations for the improvement of educational plant facilities, including sites, buildings, and equipment.

State and local school and college authorities are greatly concerned with their physical plant programs because of inadequate and obsolete facilities resulting from war-time restrictions, increased enrollments, educational reorganization, and the expansion of educational and community services. It will require an estimated 3 billion dollars to provide the public educational plant facilities now urgently needed and contemplated as soon as sufficient building materials and skilled mechanics are available. State and local educational officials are looking to the United States Office of Education for guidance and leadership in this field.

The following are among the school plant services provided by the School Housing Section during the year:

1. Staff members served as chairman of the Standards Committee of the National Council on Schoolhouse Construction for the preparation of a Guide for Planning School Plants, a project which will continue through the next fiscal year.
2. Staff member served on the programs of three national school plant conferences: American Association of School Administrators, National Council on Schoolhouse Construction, and Association of School Business Officials.
3. Staff member served on the programs of four regional school plant conferences at New York City; Nashville, Tennessee; Daytona Beach, Florida; and Chicago.
4. Staff member directed or participated in State-wide school plant conferences in Maryland, Alabama, Oregon, and California.
5. Provided consultative services to State departments of education in Maryland, Florida, Georgia, Alabama, and Tennessee.
6. Staff member served as plant consultant on college and university surveys in Florida, South Carolina, Alabama, and Mississippi.
7. Provided consultative service to War Department on Air College at Maxwell Field.
8. Provided consultative services on the plant programs of 17 county and city school systems in Maryland, Ohio, California, Alabama, South Carolina, and Georgia.
9. Staff member served as plant consultant to the Interstate School Building Service of Peabody College, which serves the State departments of education in 16 southern States.
10. Staff member served on School Equipment Committee of the American Council on Education which is studying types, designs, and educational requirements of school equipment to assist manufacturers in producing more functional equipment at lower costs through simplified practices.
11. Checked and offered suggestions on several building plans brought or sent in to the Office by school superintendents and architects.
12. Answered a large volume of correspondence giving references, advice, and technical data on the planning of educational plant facilities.
13. Published six school plant articles in professional magazines, and contributed to Office bulletins and reports.

The school plant consultative services provided by the Office of Education consisted of surveys of existing facilities, studies of future plant needs, developing of State-wide school plant programs, selection of school sites, developing State and local standards for educational buildings and equipment, and methods of financing construction.

SURPLUS PROPERTY UTILIZATION

The general lack of jurisdiction of existing State educational machinery [1] to handle in a unified way a State-wide program for surplus property led the United States Commissioner of Education, with the approval of the Surplus Property Administration, late in 1945 to request the Governors and the State legislatures to designate existing State educational agencies or to create new State agencies to handle the functions that necessarily would devolve on States in carrying into effect the public benefits section of the Surplus Property Act of 1944. The first implementing of section 13 of the Act had appeared as Surplus Property Administration Regulation 14, in November of 1945.

Responsibilities Placed in U. S. Office of Education

SPA Reg. 14 placed the following responsibilities in the Federal Security Agency which delegated them to the United States Office of Education:

1. Prepare certified list of educational institutions and instrumentalities;
2. Prepare estimates and submit recommendations of property to be reserved for educational institutions and instrumentalities;
3. Develop criteria for the determination of legitimate and relative needs of educational institutions and instrumentalities;
4. Establish procedures under which applications by or for educational institutions and instrumentalities will be submitted and reviewed and providing for action to be taken on such applications following review;
5. Cooperate with disposal agencies with respect to the giving of notices of available surplus property to educational institutions and instrumentalities;
6. And such other action as may be necessary to fulfill the functions of the Federal Security Agency under Regulation 14 with respect to disposal of surplus property appropriate for school, classroom, or other educational use to educational institutions and instrumentalities.

Divisional Organization and Functions—July 1, 1945, to June 30, 1946

In order to meet these responsibilities and otherwise to promote the acquisition of surplus property and to achieve equitable distribution to eligible educational claimants, the Commissioner organized the Division of Surplus Property Utilization in the Office of Education, with a director in charge. The division has two branches in the Washington Office—Field Operations Branch and Plans and Programs Branch—and a field staff.

---

[1] A study of the jurisdiction of State boards of education over the total field of public education was made and published by the U. S. Office of Education early in 1944.

Much preliminary planning had been done in 1944–45 to assist States in acquiring and effectively utilizing surplus Government war property immediately following the passage of the Surplus Property Act of 1944.

An advisory committee had been set up by the Commissioner in March of 1944.

The Division's functions and activities include the following:

1. Assisting the WAA, Army, and Navy in securing an equitable distribution to educational institutions of property surplus to the needs of the Federal Government;
2. Aiding the State educational agencies in the continuous revision and adaptation of their procedures as they relate to revised WAA, Army, and Navy regulations and changing conditions in the disposition of properties involved.
3. Advising and assisting the State educational agencies in the review, approval, and summarization of Declarations of Intent and in the review and approval of requests for Army and Navy donable property from educational institutions.
4. Stimulating the development of procedures for consolidated purchases in order that educational institutions may acquire all types and kinds of available surplus property.
5. Making, upon request of WAA, field surveys of real property under negotiation for purchase by educational claimants.
6. Reviewing and certifying requests for Army and Navy donable property.
7. Maintaining close liaison with the Army and Navy for the purpose of assisting in developing expeditious and equitable methods of distributing donable property needed by schools, colleges, or universities.
8. Notifying educational institutions through State educational agencies regarding donable Army and Navy property and methods of acquisition.
9. Determining the eligibility of educational institutions for the benefits as provided under SPA Regulation 14 and keeping current a list of all eligible educational claimants for use by War Assets Administration, State educational agencies for surplus property, and field representatives.
10. Developing and maintaining harmonious and effective working relationships between WAA regional offices, educational institutions, the State educational agencies, and the Army and Navy.

Field operations branch.—The field operations branch is headed by a deputy director who is responsible to the director. This branch is responsible for the operation of the functions listed above as they affect the 130,000 potential educational claimants, the 48 State educational agencies plus those in the District of Columbia, Alaska, Hawaii, and Puerto Rico, the 33 War Assets Administration regional offices, and the Army Service Commands.

The deputy director is responsible for the supervision of operations of the branch. This includes the establishment of procedures in accordance with the regulations of WAA, the Army and the Navy, and the coordination of the entire disposal program in the field to insure a fair and equitable distribution.

A staff of field representatives is stationed in or assists the WAA regional offices, the Army headquarters, the naval establishments, and the State educational agencies.

In order effectively to carry out the field operations the States have been divided into five regions: roughly, the Northeast and North Atlantic States; the Southeastern States; the Middle Western States; the Southwestern States; and the far Western States. A regional chief and assistant regional chief are in charge of each region and are charged with the responsibility for the entire disposal program in the region.

They are responsible for the supervision of the field representatives activities, which include liaison with WAA regional offices; the stimulation of the growth and development of the State educational agencies for surplus property; the encouragement through direction and advice of cooperative buying and central warehousing by educational institutions within a State; the allocation of available surplus and donable property among States; the supervision of reallocation of available surplus and donable property to educational institutions within States; the coordination of Navy, Army, and WAA special order programs to insure a fair and equitable distribution of like equipment among eligible claimants; and, promotion of the distribution of surplus and donable property to educational institutions.

Plans and programs branch.—The plans and programs branch is headed by a deputy director who is directly responsible to the director. This branch has the responsibility for liaison and consultative services to WAA, Army, Navy, and other governmental and private agencies. These liaison and consultative services include technical and professional advice on all phases of education as it is related to the disposal to and the acquisition by eligible educational claimants of property surplus to the needs of the Federal Government.

Specifically, such services include technical and professional advice concerning: The needs of educational claimants for all kinds of property; the usability and adaptation of real property for eduational purposes; the fiscal and business procedures of school systems, colleges, and universities as they relate to the acquisition of property; the need by educational claimants for property to be offered through special orders to SPA Regulation 14; the methods and procedures necessary to insure a fair, orderly, and equitable distribution of available property.

The director was delegated authority by and is responsible to the Commissioner of Education for performing these functions and has responsibility for effecting expeditious transfer to educational institutions of Army and Navy donable property.[2]

The director determines jointly with the director of the Office of War Property Distribution of the Federal Security Agency and other departments or agencies concerned, the procedures to be followed by educational claimants in acquiring surplus property by purchase and donation.

State Educational Agencies for Surplus Property

Each of the 48 States, the District of Columbia, Alaska, Hawaii, and Puerto Rico, has established a State (or territorial or District) educational agency for surplus property, with headquarters in the capital city of the State (or Territory) except in the case of Delaware (located in Wilmington) and Maryland (located in Baltimore), to keep eligible claimants and the public informed of procedures in force in the State and to answer inquiries addressed to it by interested persons.

The purpose of the State educational agencies and the functions they perform in the program are given in educational surplus property memoranda Nos. 1 and 9 which, together with other duplicated and published materials, are available from these agencies, from the division's office in Washington, D. C., and from the field representatives. These agencies assist claimants to buy surplus property at a discount and to obtain donable property for educational use.

Since a principal purpose of the program of the Division of Surplus Property Utilization is to assist WAA and eligible educational claimants to do business, and particularly to assist these claimants to get price benefits permitted under SPA Regulation 14 (and other SPA regulations) and to obtain donations for eligible educational institutions, both the departmental and field staffs of the division seek wide dissemination of information on sales and donable property. The major source of information on sales of property to priority claimants[3] is the War Assets Administration, Washington, D. C., and its regional offices, since the sales are controlled by that administration.

The State educational agencies for surplus property, with assistance from the field representatives of the United States Office of Education, give information to those seeking purchases or donations of property. Requests for information should be addressed to the executive officer of the State educational agency for surplus property in the State in which the request originates.

---

[2] Delegation of authority to Office of Education in donation programs for Army and Navy are contained in SPA Regulations Nos. 4 and 19 and in War Department PR–7, par. 7–316 and Navy Department PR&D Regulation No. 1, par. 210.

[3] See SPA Regulation 2.

In proportion as the State agency is adequately staffed and financed by the State, the State is in position to acquire by purchase and by donation its share of surplus and donable property. Through its own efforts the State agency can enhance the quality as well as the quantity of its acquisitions.

Six Methods of Acquiring Surplus Property

At the present time there are six different methods or procedures by which educational institutions may acquire property surplus to the needs of the Federal Government. These are: (1) WAA brochure sales at 40 percent discount under SPA Regulation 14; (2) WAA site sales at 40 percent discount under SPA Regulation 14; (3) WAA real property disposals under SPA Regulation 5; (4) WAA Special Orders under SPA Regulation 14; (5) Army donable property under SPA Regulation 19 and War Department PR 7; par. 7–316; and (6) Navy donable property under SPA Regulation 19 and Navy Department PR & D Regulation No. 1, par. 210.

There are four control points through which property is obtained under these six methods, namely: (1) the 33 Regional Offices of WAA (brochure and site sales); (2) the Washington Office of WAA (special orders and real property); (3) the Army and its various installations; and (4) the Navy and its various installations.

Participation by the Office in the Six Methods

1 *Brochure sales.*—Technical assistance to the WAA regional offices as to the kinds of surplus property needed by educational institutions at the various levels.

Technical assistance to the WAA regional offices and the State educational agencies in the adaptation of the varied and complex business procedures of educational institutions to the business methods of WAA. (This involves the stimulation of cooperative buying and central warehousing by educational institutions within a State through the State educational agency in order to permit the greatest flow of available property to educational institutions in accordance with WAA procedures.)

Technical assistance to WAA regional offices in the allocation of property available to priority IV and V claimants. (This involves presenting the needs of educational institutions to WAA when available property is allocated among the claimants of group IV and group V; the allocation of the property made available to education among the States: and insuring for WAA that property allocated to a State is reallocated by the State educational agency in a fair and equitable manner to educational institutions within the State.)

2. *Site sales.*—Technical assistance for WAA at site sales to educational institutions desiring to acquire property. (This involves screen-

ing the inventories of property available at a site sale to determine if there is any property in which educational institutions might be interested; to notify eligible claimants of such property when notices by WAA are through general newspaper advertisements; to determine, when possible, if any property of interest to educational claimants is available at a site sale at the time when group IV and V claimants are authorized to buy. This assistance has been found to eliminate needless attendance by representatives of educational institutions at site sales.)

Technical assistance to State educational agencies in promoting group purchasing by educational institutions at site sales. (This involves the only effective method by which educational institutions can acquire any appreciable amounts of property at site sales.)

3. *Real property disposals.*—Technical assistance to WAA in determining the need for and effective utilization by an educational institution of available real property. (This involves independent surveys by the United States Office of Education representatives of the real property requested by an educational claimant to determine if the facilities requested are adaptable for educational purposes and if the proposed educational use of such facilities is educationally sound and of benefit to the Nation.)

4. *Special orders to SPA Regulation 14.*—Technical assistance to WAA in the disposal of special kinds of equipment to educational claimants at a nominal price. (This involves assistance in the allocation of available property.)

5 & 6. *Army and Navy donable property.*—These two programs are basically alike in their problems but differ in details.[4]

Technical assistance to the Army and Navy in the determination of what kinds of property can be effectively utilized by educational institutions. (This involves the location, screening, and freezing of excess property for educational claimants in accordance with the needs of such claimants.)

Technical assistance to the Army, Navy, and State educational agencies in the allocation of available excess property. (This involves the formation of a cooperative plan between States and by States for the removal of excess property to central warehouses and subsequent reallocation to educational claimants; the obtaining and approving of requests for donable property on the basis of need and utilization; a fair and orderly distribution; and a coordination in the disposal of property available from Army sources and from Navy sources.)

---

[4] See War Department PR–7, par. 7–316 (revised) and Navy Department PR&D Regulation No. 1, par. 210 (revised). Educational surplus property memorandum Nos. 10 and 11 giving policies and procedures applicable to these programs are available from the State agencies and the U. S. Office of Education. Forms and instructions are also available from these sources.

How Eligible Educational Claimants Acquire Property [5]

1. *By purchase at discount from fair value from WAA* [6]

(*a*) *Personal property.*—Educational institutions desiring to purchase property offered by WAA on notices of offering indicate their intent to purchase certain quantities and types of property to the appropriate State educational agency for surplus proerty. State educational agencies will approve declarations of intent, summarize the declarations of intent of all institutions within the State which are filed against a specific notice of offering, and transmit the summary to WAA. WAA notifies the State educational agencies of the amount and type of property reserved for claimant institutions. State educational agencies will allocate the property available reserved by WAA among educational institutions within the State, and instruct them to file purchase orders with WAA for the quantities and types of property allocated to them.

(*b*) *Real property.*—Educational claimants may submit applications to WAA for any real property known to belong to the Federal Government which they can effectively utilize for educational purposes. Applications should be sent to War Assets Administration, Washington 25, D. C., even though the claimant does not know whether the real property has been declared surplus.

The United States Office of Education, as advisory agency to the War Assets Administration, upon request of WAA, makes independent investigations of applications from educational claimants.

On the basis of its investigations, the United States Office of Education makes recommendations as to the benefits that have accrued or may accrue to the United States by the disposition of the real property to the particular educational claimant applying for it.

2. *By donation from WAA, Army, and Navy*

(*a*) *Donation of property authorized under WAA Reguations 4 and 19.*—Nonprofit educational institutions may obtain property which is considered salvage (worn, damaged, deteriorated, or in incomplete condition, or which is of such a specialized nature that it has no reasonable prospect of sale as a unit) or scrap (property that has no reasonable prospect of sale except for its basic material content) by donation from disposal agencies, upon approval of the Federal Security Agency, United States Office of Education, to the end that such donations, shall, to the extent feasible, be made to those institutions which are in the greatest need of the property.

---

[5] Information on WAA sales under SPA Regulations 5 and 14 is available from the WAA office in Washington, D. C.; forms and instructions on Army and Navy donations are available from the headquarters, activity, or installation at which property is located or from U. S. Office of Education, Washington, D. C., and State agencies.

[6] Under SPA Regulations 5 and 14.

(*b*) *Donation by Army under PR–7, par. 7–316.*—Institutions not operated for profit (including institutions operated by States or political subdivisions thereof) may obtain certain types of machinery, mechanical equipment and tools which have been declared obsolete or excess to the needs of the Army upon presentation of a written application approved by the United States Office of Education (Federal Security Agency) and reviewed by the commanding general of the Army area, to the chief of the Technical Service Command.

The United States Office of Education representatives assist educational institutions in locating and selecting obsolete or excess Army property which may be used appropriately for the primary purpose of instruction. The applicant institution must warrant that it is not operated for profit; the property requested must be used in courses of vocational training or instruction; the institution must have a standard curriculum in the fields for which it offers training; the institution must provide a regular course of instruction which will require the use of the property; the request must be reasonable and proper in view of the training to be given and the amount of property reasonable in proportion; the institution must provide adequate facilities to maintain the property; and the applicant institution must pay all expenses necessary for packing, handling, and delivery to the carrier before property will be shipped.

(*c*) *Donations by Navy under P. R. & D. Reg. 1, par. 210.*—Nonprofit schools, colleges, or universities may obtain certain types of machinery, mechanical equipment, tools, boats and boat equipment, and obsolete air-borne electronics and radar equipment, which has been declared excess to the needs of the Navy, upon presentation of a written application approved by the Office of Education (Federal Security Agency) to the cognizant bureau, Navy Department, Washington, D. C. The applicant institution must warrant that it is a nonprofit school, college, or university; state that the property will be used in courses of vocational training or aeronautical courses; indicate the specific method of use in such courses, and if air-borne electronics or air-borne radar is requested, certify that such property will not be used in actual flight. In addition, the applicant must agree to pay all packing, handling, and shipping charges resulting from the filing of the application.

Amount of Property Acquired

The following tables show, for the periods indicated, the fair value of property purchased by educational claimants from War Assets Administration and the acquisition cost of property donated to schools, colleges, and universities by the Army and Navy.

TABLE 8.—*Preliminary report of purchase orders and sales under SPA Regulation 14, educational institutions and instrumentalities, for period Feb. 16, 1946, through June 28, 1946*

[This preliminary tabulation is incomplete as shown by the other footnotes to the table. This explanation should also be made: Although the number of sales documents received is indicated as 48.8 percent of the purchase orders received it is known that several sales documents, in many instances, may be written against a single purchase order. Furthermore, the fair value of the property which the sales documents represent is only 28.8 percent of the total fair value of the property on the purchase orders received. This is due in part to the difficulty of obtaining sales documents immediately from WAA and in reporting complete data to the Office of Education. If all sales documents issued to the close of the period had been available the number and the fair value of property which they represented would have been considerably greater]

WAA region	Purchase orders received		Sales documents received from War Assets Administration			
	Number	Fair value	Number	Percent, column 4 of column 2	Fair value	Percent, column 6 of column 3
1	2	3	4	5	6	7
Alabama—Birmingham	62	$74,972	17	27.4	$8,084	10.8
Arkansas—Little Rock	31	15,459	28	90.3	10,608	68.6
California—						
San Francisco	1,693	1,136,175	756	44.6	275,100	24.2
Los Angeles	478	253,479	162	33.9	62,077	24.5
Colorado—Denver	1,694	349,700	920	54.3	182,506	52.2
Florida—Jacksonville	17	12,195	0	0	0	0
Georgia—Atlanta	2,654	1,323,612	1,721	64.8	414,287	31.3
Illinois—Chicago	1,148	923,990	427	37.2	162,270	17.6
Kentucky—Louisville [1]	---	---	---	---	---	---
Louisiana—New Orleans	440	363,083	230	52.3	95,684	26.4
Massachusetts—Boston	1,522	566,380	1,093	71.8	227,759	40.2
Michigan—Detroit	261	107,114	28	10.7	[2] 17,815	16.6
Minnesota—Minneapolis	138	73,320	14	10.1	9,684	13.2
Missouri:						
Kansas City	1,644	950,869	725	44.1	[3] 198,795	20.9
St. Louis	65	36,985	15	23.1	[4] 26,695	72.2
Montana—Helena	28	16,644	1	3.6	3,623	21.8
Nebraska—Omaha	86	49,460	42	48.8	39,773	80.4
New York—New York City	2,498	889,437	1,383	55.4	323,134	36.3
North Carolina—Charlotte	65	83,448	10	15.4	3,413	4.1
Ohio—						
Cincinnati	2,275	559,390	451	19.8	114,088	20.4
Cleveland	238	111,132	430	180.7	62,120	55.9
Oklahoma—Oklahoma City	240	68,817	4	1.7	2,106	3.1
Oregon—Portland	139	38,401	44	31.6	6,593	17.2
Pennsylvania—Philadelphia	1,101	441,263	667	60.6	156,110	35.4
Tennessee—Nashville	80	66,277	68	85.0	59,609	89.9
Texas—						
Dallas [1]	---	---	---	---	---	---
Fart Worth	1,256	1,045,871	891	70.9	245,664	23.5
Houston	12	2,711	0	0	0	0
San Antonio	11	1,736	6	54.5	837	48.2
Utah—Salt Lake City	106	37,310	18	17.0	3,520	9.4
Virginia—Richmond	191	212,031	10	5.2	6,367	3.0
Washington—						
Seattle	1,021	426,437	805	78.8	254,252	59.6
Spokane [1]	---	---	---	---	---	---
Washington, D. C.—Electronic program	1,297	70,562	0	0	0	0
Total	22,491	10,308,260	10,966	48.8	2,972,573	28.8

[1] No reports received.
[2] On 26 sales documents only.
[3] On 496 sales documents only.
[4] On 13 sales documents only.

Army and Navy donation programs.—Table 9 shows donations to educational institutions by the Army Air Technical Service Command for the 12-month period ending May 31, 1946.

TABLE 9.—*Donations to educational institutions by Air Technical Service Command, Army Air Forces. Total cost price of donations and percentage donated to several types of institutions, by months*

Month	Total cost price of donations	Percent donated to—			
		Regular public elementary and secondary schools	Public technical, trade and vocational schools	Higher educational institutions	Miscellaneous
1	2	3	4	5	6
Total for 12 months	$28,640,769	------	------	------	------
1945					
May	4,324,113	25.6	62.5	11.4	0.5
June	4,495,269	21.9	30.0	47.1	1.0
July	5,228,540	48.6	30.1	19.3	2.0
August	1,673,726	41.4	43.2	15.3	.1
September	1,645,154	29.5	64.6	5.9	.0
October	1,339,808	35.1	17.3	47.5	.1
November	865,463	54.7	11.7	33.6	.0
December	1,893,061	59.6	24.1	13.8	2.5
1946					
January	850,416	28.4	2.8	63.2	5.6
February	1,912,491	41.0	9.2	49.1	.7
March	1,569,095	55.3	15.1	29.6	.0
April	1,750,201	38.2	5.9	49.4	6.5
May	1,093,432	53.0	12.7	26.8	7.5

Comparable statistics are not available for donations by the Army Service Forces and the Navy. However, figures have been provided as follows:

Source of donation and period covered	*Acquisition cost*
Army Air Technical Service Command, February through June, 1946	$8,168,000
Army Service Forces, February through June 1946	20,697,000
Navy, May and June 1946	2,870,000

It should be pointed out that these figures represent acquistion cost of the property donated and are not directly comparable with the fair value figures for surplus property purchased from the WAA. Furthermore, the acquistion cost of much of the property donated by some of the technical services of the armed forces is an inflated measure of the value of that property in educational programs.

AMERICAN PRINTING HOUSE FOR THE BLIND

One of the principal functions of the American Printing House for the Blind, located in Louisville, Ky., is to supply the Braille books and tangible apparatus, such as topographical maps, Braille writing devices, and talking book records, for the education of the blind in the public educational institutions for the blind throughout the United States, its Territories, and the District of Columbia. For this purpose, the Congress appropriates annually the sum of $125,000. Allocations of books and materials are made to the several schools on the basis of their enrollments. The superintendents of these schools are ex officio trustees of the printing house.

The printing house maintains large catalogs of Braille books, talking books, and Braille music publications. The schools for the blind are thereby provided a rich collection of educational materials from the kindergarten through high school. Through the medium of embossed books, talking books, and Braille music, the schools for the blind are able to offer instruction which parallels the courses of study in the best public schools. In addition, extensive courses are given in manual arts, home economics, and music. The blind children of the whole country are being given educational opportunities which compare favorably with those offered seeing children in the public schools.

For the 6,000 blind children in the schools for the blind, the printing house provides a continuing service from year to year which consists of making necessary reprints of Braille books and talking books already in print, the embossing and printing of all new texts and reference materials necessary to keeping the lists of publications up to date, and in the manufacture of any and all types of tangible apparatus approved by the instructors of the blind.

COLUMBIA INSTITUTION FOR THE DEAF

Columbia Institution for the Deaf is devoted to the instruction of deaf persons. The aim of the institution has been continuously the advancement of deaf persons through various educational means and research work.

Kendall School, a department for the younger deaf children of the District of Columbia, has been operating since the founding of the institution in 1857. In this department are children who begin their work at 5 years of age. The work extends through all grades up to college entrance. Speech and lip reading are used in this department. However, there are children who cannot make progress through this means of communication, and the school is prepared to use any other methods which will bring results. There are always those who have remnants of hearing. Multiple hearing aids are provided for the use of these children. Prevocational work is available, and generally when students finish their work in Kendall School they have no difficulty getting positions which enable them to support themselves and their families.

Gallaudet College is for deaf students in the United States whose hearing loss is too great for them to succeed in colleges for hearing students. It has been in operation since 1864, when the institution was first given the right to confer collegiate degrees. A liberal arts course is offered to young men and women who pass the entrance examinations. These examinations are given each year during the month of May to all eligible students in schools for the deaf in the United States and Canada. Usually between 30 and 40 States are represented in the enrollment of the college. Practical courses are offered to young women along the lines of household decoration, the preparation of foods, dressmaking and designing, typing, filing, and library science. There are courses available to young men along the lines of chemistry, physics, drawing, and printing. Many graduates go out from the college as teachers of the deaf. There has been intensification of the teacher-training course for the senior students so they will be better prepared for the teaching profession they propose to follow. During the past few years graduates of the college have found no difficulty in obtaining positions as teachers in schools for the deaf, chemists, linotype operators, clerical workers, and skilled workers in war and postwar industries. From now on the competition will be more keen, but the war has given the deaf person a chance to demonstrate that he can do many types of work as well as those with full-hearing capacities. It is hoped that there will be a carry-over in this respect from the experience of the war years.

The normal department is for hearing young men and women who wish to teach the deaf. During the war it was difficult to obtain candidates for this training, but indications are that there will be more applicants than can be enrolled for the next few years. This is well, because there is a severe shortage of teachers in the profession.

The research department has recently completed studies of the Maryland State School for the Deaf and the Washington State School for the Deaf. During the past year there has been continued regular testing of the three lower classes in order to find how these students stand, both psychologically and educationally, as compared with students in other colleges.

HOWARD UNIVERSITY

Howard University, located in the District of Columbia, operates an undergraduate college, a graduate school, and seven professional schools as follows: medicine, dentistry, pharmacy, engineering, music, law, and religion. This institution is the only university organization in the States where the majority of Negroes live which offers a wide scope of undergraduate, graduate, and professional opportunities to Negro youth.

Its major professional schools are not developed to a point of approval by official accrediting agencies, with the exception of engineering which is still short of necessary building and equipment. The college of dentistry is provisionally accredited pending the acquisition of the proper building and equipment.

Enrollment

During the school year 1945–46 Howard University served a total enrollment of 5,130 students. This represents a net increase of 502 students or 10.8 percent above the enrollment of 4,628 for the preceding year. These 5,130 students were enrolled in 10 schools and colleges as follows: The college of liberal arts, 3,185; the graduate school, 470; the college of medicine, 336; the college of dentistry, 197; the college of pharmacy, 113; the school of engineering and architecture, 215; the school of music, 408; the school of law, 105; the school of social work, 120; the school of religion, 60. Grand total, 5,209, less duplicates, 79; net total, 5,130.

Trebled Enrollment in 13 Years

This 1945–46 attendance of 5,130 students represents the peak of a wave of enrollment increases which has advanced with unbroken steadiness and intensity since 1933–34. At that time the total enrollment was 1,626 students. By 1938 it was 2,240 students. By 1942 it was 3,336 students. By 1945–46 it was 5,130 students. This represents a total increase since 1934 of 3,504 students or 246.4 percent. The enrollment has more than trebled itself in 13 years.

Students Exceed the Numbers Expected for 1951–52

This enrollment of 5,130 students exceeded by 273 the maximum enrollment expected by 1951–52. It has caused every professional school except religion to put a numerical limit upon its freshman class, and has precipitated the immediate necessity for the full physical plant expected by 1951–52 and for an immediate decision regarding the maximum enrollment which the undergraduate college can be expected to bear. The 1-year increase in this college alone was 441 students.

The pressure of applications, in all directions, indicates that the university has by no means reached the full peak of enrollment demands upon it. At the close of the year indications were that a further substantial increase of above 1,000 additional students will press in upon us next year. The rapid advance in high-school enrollment, the return of the veterans, and the high state of employment make this pressure inevitable.

The Solid Full-Time Character of the Enrollment

One aspect of this enrollment was very significant for the developing quality of the university. In every quarter of instruction the full-time equivalent enrollment was very close to the actual number of persons enrolled: In the autumn quarter, 91.5 percent; in the winter quarter, 99 percent; in the spring quarter, 87 percent. This means that by reason of the benefit of the Government's financial assistance to soldiers and the high state of employment among the people an average of 92½ percent of the student body was in position to give full-time attention to their studies. This cannot fail to have a highly constructive effect upon the qualitative performance of students and of teachers.

Five-fold Increase in Veteran Students

Eight hundred twenty-three veterans were enrolled in the University throughout the year. The maximum number in residence at one time was 761 at the end of the spring quarter. This number represented more than a five-fold increase from the 142 veterans enrolled in 1944–45. These 761 veterans were distributed as follows: college of liberal arts, 521; school of engineering and architecture, 82; school of music, 20; college of pharmacy, 26; the graduate school, 23; college of medicine, 31; college of dentistry, 28; school of religion, 2; school of law, 23; school of social work, 5. Total 761.

Veterans' Counselling and Advisory Service

Very early in 1945 it appeared that returning veterans would need special counselling and advisory service. The University selected one of its able faculty members, sent him away for special training, and, under his leadership, established the Veterans' Counselling and Advisory Service which began operation on January 1, 1945.

This office has served as a clearance agency for all the varied problems confronting the veteran in connection with his education, including personal health and financial difficulties as well as problems of educational adjustment.

The University has found this service to be profoundly helpful to the veterans, and it plans to continue and to enlarge its functions as the number of veterans increases.

Veterans have entered fully and heartily into activities on the campus, including football, basketball, track, the University Choir, the Howard Players, and the Howard University Orchestra. On the whole, in the undergraduate college and throughout the University, they have been a positive asset in morale and in scholarship.

Women in the Professions

Howard University, from the beginning, opened all of its schools and colleges to women. During the war women have taken full advantages of the opportunities offered here. In 1945–46 they constituted 56 percent of the entire enrollment. Five hundred sixty-one women were enrolled in the eight professional schools. Of this number 430 enrolled in music and social work and there were 34 in medicine, 19 in dentistry, 41 in pharmacy, 25 in law, 10 in engineering, and 2 in religion. At the commencement in June the University graduated its first woman professional student in engineering. She took the degree of bachelor of science in civil engineering.

Geographical Sources of Enrollment

Forty-one States, the District of Columbia, and 19 foreign countries sent regularly enrolled students to Howard University during the year 1945–46.

The enrollment of foreign students is drawn heavily from the Caribbean area. Howard University is cooperating in the effort to improve the educational system of the Virgin Islands by an annual award of eight tuition scholarships to students officially recommended from these islands. Two members of the faculty of Howard University are serving as members of the Anglo-American Carribbean Commission, looking toward the development of a highly constructive program for the people of this area.

Number and Distribution of the Faculties

The faculty of Howard University numbered 334 teachers in 1945–46. Of these 209 were devoting their full time to education and 125 were serving as part-time instructors, making the equivalent of 233 full-time faculty members. This staff represented an increase of 30.3 members above the faculty of 202.7 members for 1944–45; but it was still substantially too small. The rising flood of students fairly overwhelmed the faculties in the college of liberal arts, the graduate school, and music, and subjected other faculties to maximum strain.

The 233 full-time equivalent faculty members were distributed among four ranks as follows: professors, 54.7 or 23.5 percent; associate professors, 32.6 or 14 percent; assistant professors, 49.8 or 41.1 percent. It will be seen at once that the rapid growth of students has forced a faculty development too heavily weighted in the instructor's rank. A minimum, adequate distribution would require the following: professors, 93.2 or 40 percent; associate professors, 23.3 or 10 percent; assistant professors, 46.6 or 20 percent; instructors et al., 69.9 or 30 percent.

Appreciation and New Impetus to the Research Work of the Faculty

From three directions new appreciation and impetus have come to the research work of the faculty.

The head of the department of chemistry at Howard University was connected with the Division of War Research at Columbia University from the very beginning of atomic bomb research in 1943. Dr. Harold C. Urey, the Director of the project, writes concerning him:

> He has made outstanding contributions to the scientific work of the project, having found answers to questions many times that were critical in the work of the whole project. He has been given appreciable administrative responsibility, having at one time supervised the work of a number of people. His ability to grasp the fundamentals of a problem rapidly and to push research through to a quick and successful conclusion has been an invaluable asset to us.

The Conference of Presidents of the Land-Grant Colleges has selected the professor and head of the department of sociology at Howard University to lead and to coordinate all research in these colleges bearing upon Negro life and race relations.

Outstanding Recognition of the Teaching and Administrative Ability of Howard University Professors

During the year two members of the faculty of Howard University were invited to serve as visiting professors at distinguished American institutions and two were appointed to serve in outstanding positions of public responsibility and trust. The professor and head of the department of philosophy was invited to serve as visiting professor of philosophy at the University of Wisconsin, and the professor of American literature—himself a poet and novelist—was invited to serve as visiting professor at Vassar College.

The professor and head of the department of political science, by reason of his outstanding knowledge of colonial practices and policies and of his administrative ability, has been appointed as the Director of the Division of Trusteeship of the United Nations. The dean of the school of law has been appointed by the President and confirmed by the United States Senate as Governor of the Virgin Islands.

New Departures

There were two outstanding new departures at the university this year. One was a substantial venture in the field of adult education. The other was the successful launching and accreditment of a 2-year school of social work.

Experiments in Adult Education

In 1945–46 the university offered 17 courses in adult education to a total of 537 students in the autumn, winter, and spring quarters. This program of noncredit courses is designed to meet the needs and demands of adults who are not primarily concerned with academic degrees but who seek the intellectual stimulus and increased knowledge that may be gained from work of this type. There are no formal requirements for these courses which may be taken with profit by any adult interested in developing his cultural and intellectual growth. This work has been heralded with warm appreciation by the American Adult Education Association, and has been very cordially received by the people.

Accreditment of 2-Year School of Social Work

During the school year 1945–46 education in social work, begun in 1935, advanced to the status of a full-fledged professional school with a 2-year curriculum and an enrollment of 120 students. Under date of March 18, 1946, the new school was inspected by the American Association of Schools of Social Work, and by vote of the board of directors of the American Association of Schools of Social Work, May 1946, it was admitted to full membership as a 2-year accredited school.

The Executive Secretary of the Association wrote to the director of the school as follows:

> I want to take a moment to reassure you about the very good job that I think you are doing. . . . I think you particularly, but your faculty too, are to be congratulated for the way you took hold, developed your second year program and are working toward a sound program of education. . . . Your basic structure is good and I think the sequences you have developed are sound.

War Services

Of the special war services operated during the period of conflict the Engineering, Science and Management War Training program was brought to an end under date of June 30, 1945. This program did not operate, therefore, during the school year 1945–46. The Army specialized training program was discontinued in every division of the university with the exception of medicine, and the Army specialized training reserve program, which had a brief life during the school year 1944–45 did not operate during the school year 1945–46.

Reserve Officers Training Corps

Since the last World War Howard University has operated an ROTC unit. Its work was rated by the Army as "Excellent" for 10 successive years. By reason of the operation of the Selective Service, the ASTP and the ASTRP, and the temporary discontinuance of advanced courses during the war, the number of students in this division was reduced. During the school year 1945–46, however, the advanced courses were restored and the enrollment increased from an average of 168 students to an average of 206 students per quarter. In anticipation of further growth, the University has remodeled that portion of Spaulding Hall used by the engineering, science, and management war training program, transferred the Army quarters and remodeled the armory space for a new shooting gallery.

Graduates and students of the Howard University ROTC served in all branches of the Army, the Navy, Marine Corps, and Coast Guard. Howard-trained reserve officers comprised almost the entire cadre of the Three hundred and sixty-sixth Infantry, the bulk of the Negro personnel of the Ninety-third Infantry Division, the Ninety-ninth Fighter Squadron, the Three hundred and thirty-second Fighter Group and the Four hundred and seventy-seventh Bomb Group.

More than 1,800 members of the Howard University community—teachers, students, graduates, and employees—served in the Armed forces of the United States during the war. Twenty of these were members of the faculty.

Outstanding War Services of School of Engineering and Architecture

The school of engineering and architecture reports that its students served in the Army, Air and Signal Corps, and with combat engineers, in ranks varying from private to full colonel. The admirable record of this single college shows five citations, four purple hearts and six gold stars.

The Hon. Robert P. Patterson, Secretary of War, has forwarded to Howard University the following certificate of distinction:

Be It Known That This
Certificate Of Distinction
Has Been Awarded By The
WAR DEPARTMENT
To
HOWARD UNIVERSITY
For the Training Of Soldiers In The
ARMY SPECIALIZED TRAINING PROGRAM
During World War II

Congress Appropriates Vigorous Help

The members of the Congress have been aware of the acute situation affecting the teaching personnel and physical plant of Howard University and both for and during the school year 1945–46 have made vigorously helpful appropriations.

(1) In the 1946 appropriation bill the Congress provided funds for the employment of 18 new professors. This appropriation enabled the university to make a substantial addition to the number of teachers while at the same time strengthening the quality of its work at the top of the teaching staff. It also enabled the university to expand the area of its educational offerings by adding the following fields of study: anthropology, astronomy, geography, and the history and appreciation of art. Plans are afoot for further expansion into geology and the teaching of public health and hygiene in the undergraduate college.

(2) A special deficiency appropriation during the year enabled the university for the first time in its history to bring the salaries of all nonteaching personnel up to the level of beginning salaries which they would receive for equivalent work in the Federal Government and to build up the salaries of teachers to the point where, for the university as a whole, they approximated the average contemplated in the first 20-year program.

(3) The appropriation of funds for the advance planning of two women's dormitories, an engineering building, dental building, an auditorium and fine arts building placed the university in position to go forward with an indispensable section of its building program in areas where the accreditment of instruction is dependent upon building and equipment and where the physical facilities have been so heavily overrun by the enrollment as to make the earliest possible construction of the buildings imperative.

These appropriations give evidence of a concern on the part of the Federal Security Agency, the Bureau of the Budget, and of the Congress of the United States for the development of a center of university education at Howard which shall be of first caliber in every respect. They inspire all our staff with the determination to work toward this end, with all their strength.

SECTION THREE

OFFICE OF VOCATIONAL REHABILITATION

INTRODUCTION

The 1946 fiscal year was characterized by marked progress on the part of the Office of Vocational Rehabilitation and the cooperating State vocational rehabilitation agencies in four vital areas:

(1) The quality of vocational rehabilitation services rendered to mentally and physically handicapped men and women was improved;

(2) The quantity of essential vocational rehabilitation services rendered was increased;

(3) The number of handicapped persons who received vocational rehabilitation services was increased; and

(4) Vocational rehabilitation services were brought closer to the men and women who need them, through a process of decentralization.

Several factors have contributed to the achievements of the past fiscal year. The Office of Vocational Rehabilitation has augmented its professional and technical staff to some extent. Following the lead of the Federal Government, the States also have increased their staffs and in many instances have opened additional district offices to meet in part the need for rehabilitation services. The increases in working staff and in decentralization have made medical services, counsel and guidance, training and placement services more readily available to the people for whom these services have been established under Public Law 113 and the laws of the various States and territories.

The 1946 fiscal year also was marked by a more general appreciation of the need for medical and other physical restoration services and a more general utilization of existing facilities in providing vocational rehabilitation. There was also a general increase in the number of training services with emphasis on longer-term and higher-level instruction to meet the peacetime demand for workers of high qualifications.

One of the most significant aspects of the last fiscal year was the general recognition of the magnitude of the problem confronting the agencies responsible for administration of the Federal-State program.

Extent of Need for Vocational Rehabilitation

Despite the progress reported above, there is a continuing and growing unmet need of major proportions for the services which are provided through the Federal-State partnership in vocational rehabilitation. There are at least 1,500,000 men and women of working age in the United States—not including veterans with service-incurred disabilities—who have physical or mental impairments which are sufficiently disabling to be considered job handicaps. Furthermore, the backlog of disabled persons of working age who are eligible for and in need of vocational rehabilitation services increases by 250,000 a year.

The Office of Vocational Rehabilitation has urged consistently that the State vocational rehabilitation agencies properly appraise the extent of the problem for which they have responsibility and take the necessary steps to fill the unmet needs.

As a necessary step toward determination of the size of the problem, the board of directors of the National Rehabilitation Association and virtually all State directors of vocational rehabilitation agencies have agreed that throughout the Nation there are at least seven persons in each thousand of the population who are eligible for and need vocational rehabilitation services in order to engage in gainful employment commensurate with their capacities, or to work at all.

Many believe that, with existing authority to extend rehabilitation services to the mentally handicapped, the incidence of eligible disabled is more nearly 10 in each 1,000.

In its preliminary report (December 1944), the House Subcommittee to Investigate Aid to the Physically Handicapped (House Committee on Labor) commented as follows: "When the figures showing the number that were rehabilitated with the incidence of disabling disease and accidents in this country are studied, it is immediately apparent that the facilities available are not sufficient to keep abreast of the load."

To bring the services more nearly in line with the readily apparent need on a quantitative basis, the Office of Vocational Rehabilitation has urged the State agencies to expand their efforts to the point where 500,000 vocationally handicapped men and women, in addition to those now in process of rehabilitation, will be started on the road to successful employment by the end of fiscal year 1948. With this number in process of rehabilitation at all times, it may reasonably be expected that 150,000 handicapped men and women will be rehabilitated into gainful employment within 1 year. Once having attained that goal, it should be relatively easy to keep abreast of the incidence of disability, and probably to reduce progressively the backlog.

It is encouraging to note that the executive committee of the States Vocational Rehabilitation Council, composed of eight State vocational rehabilitation agency directors and serving in an official advisory capacity to the Office of Vocational Rehabilitation, has adopted as a goal the rehabilitation into employment of at least 150,000 disabled persons during the 1948 fiscal year.

Continued increases of staffs and many improvements at both the Federal and State levels will be required to attain this desirable and completely realistic goal. Probably some changes in the existing laws will be necessary. Recommendations relating to necessary improvements, including desirable amendments of laws, will be made specifically to appropriate authorities at appropriate times.

Scope and Administration of the Federal Act

Under the Vocational Rehabilitation Act Amendments of 1943 it became possible to serve not only the physically handicapped but also the mentally handicapped as well as those whose physical disabilities are complicated by mental difficulties. Specific provision was made for the blind; for war-disabled civilians—including merchant seamen—and for civil employees of the United States Government, injured in the performance of duty.

Administration of the amended act was made the responsibility of the Federal Security Administrator, who established the Office of Vocational Rehabilitation to carry out the responsibilities set up under the revised law.

These responsibilities include establishment of standards in the various areas of service; technical assistance to the States and certification of funds for grants-in-aid to the States upon approval of State plans for vocational rehabilitation which meet requirements of the authorizing act of Congress.

Grants-in-aid provisions were continued under the amended act; restrictions as to Federal expenditures permissible for program operations were, however, liberalized. All necessary administrative costs, including vocational guidance and placement, are now assumed by the Federal Government. Costs of medical treatment, vocational training, and similar services are shared by State and Federal Governments on a 50–50 basis. Costs of serving war-disabled civilians are 100 percent reimbursable from Federal funds.

Not only were fiscal provisions liberalized under the new act but, for the first time, Federal expenditures were made possible for physical restoration, an integral function in the rehabilitation of a vocationally disabled individual.

Organization of the Office of Vocational Rehabilitation

The Office of Vocational Rehabilitation is organized into two functional divisions: The Administrative Standards Division, made up of two sections—management standards and fiscal standards and control; and the Rehabilitation Standards Division, comprising four sections—physical restoration; services for the blind; advisement, training, and placement; and research and statistics.

The 1946 fiscal year brought about the strengthening of the Information Service as a staff-arm to the Director in assisting the States to perform their public information function.

Seven regional offices maintain close working relations between the States and the Federal office.

Programs of the Office of Vocational Rehabilitation continue to be significantly influenced by the needs of the disabled and the special post-war problems arising as services to meet these needs are expanded.

Advisory Committees

Recognizing the need for professional advice on matters of policy and program operations, the Office of Vocational Rehabilitation relies to a considerable extent on advisory committees. The National Rehabilitation Advisory Council is composed of leaders in business, industry, labor, medicine, education, services to the blind, social welfare, and others whose interests are closely related to the problems of the civilian disabled. This committee met during the past fiscal year for the first time since 1943. The committee was forced to suspend its meetings during the war because of overtaxed transportation and hotel facilities.

At its meeting, the National Rehabilitation Advisory Council dealt with the coordination of related programs and formulation of closer working agreements between the Office of Vocational Rehabilitation and the State agencies, on the one hand, and public and voluntary agencies and organizations that are concerned with the vocational adjustment of physically and mentally handicapped persons, on the other.

Another advisory group is the Professional Advisory Committee, composed of representatives of the medical specialties concerned with the physical and psychiatric rehabilitation phases of the program. This group did not meet during the past fiscal period because of lack of funds.

Vitally important is the executive committee of the States Vocational Rehabilitation Council, which has been referred to earlier in this report. The first purpose of this organization of State directors is to cooperate with the Office of Vocational Rehabilitation by serving in an advisory capacity regarding the formulation of Federal policies and standards which pertain to the States and the promotion of harmonious and effective relationships.

The Office receives valuable advisory service from State agency and other groups in addition to that given by the formally constituted advisory committees. While by no means complete, the following listings will serve as examples:

The Council of State Executives for the Blind conferred with the Office during the consideration of amendments to the Randolph-Sheppard Act, in anticipation of the transfer of the functions under that law to the Office of Vocational Rehabilitation from the Office of Education.

An especially appointed committee of medical social work consultants assisted in the revision of qualifications for medical social work consultants.

A committee of State agency personnel assisted in the revision of State forms and case reporting and recording.

A subcommittee on public information of the States Vocational Rehabilitation Council gave great assistance in the establishment of preliminary public information policies.

Cooperative Relationships With Other Agencies

One of the major responsibilities of the Office of Vocational Rehabilitation is to function as a national agency for the coordination of the activities of all public and voluntary organizations working for the disabled. Concrete evidence of the execution of this responsibility lies in the written cooperative agreements, which this office has consummated with a number of groups at the national level. During the past year agreements were entered into with the Farm Security Administration, the National Association of the Deaf, and the National Association of Goodwill Industries, bringing to 16 the total of such agreements made since the establishment of the Office of Vocational Rehabilitation under Public Law 113 in 1943. Others are in process of negotiation. Also, a statement of clarification of the agreement with the Children's Bureau was distributed to all State agencies and interested individuals. Since the close of the fiscal year, an agreement with Veterans' Administration to provide continuous rehabilitation services for veterans of World War II who may need services in addition to those provided by the Veterans' Administration, and to effect mutual referral and cooperation in the provision of services to veterans with non-service-connected disabilities through State vocational rehabilitation agencies, has been effected. Other previously completed agreements are in effect with the National Tuberculosis Association; Selective Service System; National Association to Control Epilepsy; National Industries for the Blind; American Hearing Society; United States Employees' Compensation Commission; United States Employment Service; War Shipping Administration; United States Public Health Service (War Disabled Merchant Seamen); United States Public Health Service; Children's Bureau, Division of Health Services; Social Security Administration, Bureau of Public Assistance; Social Security Administration, Bureau of Old-Age and Survivors Insurance.

The Office of Vocational Rehabilitation initiated a conference on the rehabilitation of the tuberculous with the National Tuberculosis Association and the United States Public Health Service, having cooperative agreements with both these organizations. As a result of this conference a special study project in six selected tuberculosis sanatoria was undertaken by the three groups to evaluate the respective functions and services of the different fields which contribute to the several aspects of a rehabilitation program for the tuberculous as observed through the study of specific operating programs. The ultimate purpose of the study, which was initiated early in June and is continuing into the 1947 fiscal year, is to define the appropriate functions and activities for each area of service, to point out the proper roles of the various special personnel engaged in such a rehabilitation program and methods for coordinating the various services, and finally to present material for use in the formulation of a model plan or proposals for a demonstration project.

Services to the Individual

In the State divisions of vocational rehabilitation functioning under the State boards of vocational education is vested the responsibility of providing rehabilitation services to all disabled persons living within the States.

State commissions or agencies for the blind, however, provide rehabilitation services to the blind, where legal authority exists for rendering such service. Where such authority does not exist, rehabilitation of the blind is a function of the State rehabilitation agency which, in all States, provides services to the visually handicapped who do not come within the legal definition of blindness.

Determination of eligibility of an individual for service is a responsibility of the States and determination is based upon three basic principles:

1. A person must be of employable age.
2. An occupational handicap must exist by reason of disability.
3. The individual may be rendered employable or more advantageously employable through rehabilitation services.

To assist in determining eligibility for service a thorough medical examination, which may include not only a general medical examination but such specialist and laboratory examinations as are necessary, is required under the rules and regulations pursuant to Public Law 113.

State Plans and Certification of Funds to States

State plans setting forth basic policies and procedures and administrative organization for carrying out a program of rehabilitation as required by the enabling act are submitted by the States to the Office of Vocational Rehabilitation for approval. The plans for all State rehabilitation agencies previously had been submitted and approved, but amendments submitted by eight commissions for the blind were reviewed and approved during the past fiscal year. This brought to 84 the total number of State agencies administering vocational rehabilitation programs, including 51 Boards of Vocational Education and 33 Commissions for the Blind. The States were assisted in improvement of plans.

During the fiscal year 1945–46, on the basis of budget estimates submitted for a 6-month period and after taking into account unexpended Federal funds, over $10,800,000 was made available to State rehabilitation agencies and to separate State agencies for the blind having approved State plans. In addition, State appropriations totaled approximately $3,800,000.

WORKING WITH THE STATES

Advisement, Training, and Placement Services

Counseling or advisement is an essential service extended throughout the rehabilitation process to all disabled clients. Furthermore, counseling is the one service extended to disabled persons directly by the State rehabilitation agencies. It continues throughout the entire rehabilitation process. Because of the value of this service to disabled persons, effort has been directed toward improving the quality.

The dominant function of advisement, training, and placement services in the fiscal year was to meet requests of State agencies for advancement of standards of performance of rehabilitation workers through stimulation of their professional growth in service. The induction of new workers, by the State agencies, as a corollary of the expansion of rehabilitation services under the provisions of Public Law 113, emphasized the need for assistance from the Federal office in training and developing rehabilitation workers.

Upon the requests of the State agencies, staff development programs, consultative services, and technical materials were provided as means of improving performance. The ultimate objectives of all these activities were improved counseling practices and the development of means for early location of cases in need of rehabilitation. As the nucleus of the rehabilitation process and the single service provided directly by the rehabilitation worker, a service which is continuous, counseling is properly a primary concern. Likewise, the development of case-finding methods which insure prompt location and referral of disabled individuals and thereby thwart the vitiating effects of delay is fundamental.

Two highly significant innovations were undertaken in the staff development programs to meet the requests of the State agencies. These were the workshop for the rehabilitation of the tuberculous and the workshop on casework supervision.

In cooperation with the National Tuberculosis Association, three workshops on special techniques in the rehabilitation of the tuberculous were held. These were as follows: November, 1945, at Montefiore Country Sanatorium, Bedford Hills, N. Y.; March, 1946, at Sunny Acres Sanatorium, Cleveland, Ohio; and May, 1946, at Municipal Tuberculosis Hospital, St. Louis, Mo.

In addition to the primary aims of counseling and case finding, these workshops were designed to point the way to more prompt initiation of rehabilitation services, to be started at the earliest possible point of convalescence in the sanatorium, for this special group. The three workshops were attended by 55 workers from 35 States.

Those States in which decentralization of the program has moved forward, and in which there has been an addition of new professional workers, emphasized the need for the development of techniques of supervision and in-service training at the State level. Accordingly, as requested by the States represented, two workshops on casework supervision were held (Chicago and St. Louis) at which minimum standards for performance in casework and methods of in-service training were developed as approaches to better counseling and case finding. Thirty-nine professional workers of supervisory rank from 24 States participated.

Fourteen regular orientation institutes were conducted as the States requested them, with 508 rehabilitation workers from all regions attending.

In summary, 21 staff development programs were held, with 618 rehabilitation workers, ranging through all professional grades and from all regions, taking part.

Personal consultative services were provided upon request of State directors, regional representatives, or cooperating organizations in all parts of the country. The subject matter of the consultations covered all aspects of the rehabilitation program at one time or another. Of major significance were technical advice to the States on psychological testing, on the extension of services to the tuberculous, and to the deaf and the hard of hearing; analysis of and recommendations regarding existing programs of national organizations interested in the welfare of the disabled; collaboration with and technical assistance to governmental and philanthropic organizations functioning on administrative or research levels for the advancement of rehabilitation practices.

Materials designed to stimulate the development of high quality professional performance were distributed to State agencies and cooperating organizations. The areas covered included psychological testing, occupational information, suggested procedures for rehabilitating special groups of the handicapped, counseling and guidance, selective placement, and annotated bibliographies of pertinent and current literature.

The preparation of technical manuals on employment training, casework standards, and economic need has been carried on as circumstances permitted. In addition, studies have been made of certain aspects of the rehabilitation of special groups of the disabled, such as the deaf, the hard of hearing, the blind, and the tuberculous.

Physical Restoration Services

This office is charged with responsibility for developing standards, policies, and techniques governing the provision of physical and mental restoration services, such as medical, surgical, and psychiatric treatment, hospitalization, convalescent care, physical therapy, occupational therapy, and prosthetic appliances; making studies of operations of State physical restoration programs for the purpose of evaluating the physical restoration services provided; appraising existing techniques with a view to improvement of technical services and referral of specific problems to appropriate research agencies.

The physical restoration staff consists of medical officers assigned by United States Public Health Service, a medical social work consultant, and a physical restoration analyst. In three of the seven regional offices, medical officers serve as assistant regional representatives.

During the 1946 fiscal year, a full-time consultant in psychiatry and a part-time consultant on orthopedics and prosthetic devices were added to the staff. Plans are continuing for expansion of the staff to include consultants in ophthalmology and otology, a psychiatric social work consultant, and additional regional medical officers.

In addition to providing consultative services to the regional offices and the States, members of the physical restoration staff attended numerous orientation institutes, workshops for the rehabilitation of the tuberculous, workshops on casework supervision, regional conferences of State personnel, and meetings of related and professional organizations, where they presented papers, spoke as members of panels, interpreted the vocational rehabilitation program or emphasized specific aspects such as physical restoration, psychiatric rehabilitation, or problems of the severely handicapped.

Medical officers prepared technical and general materials, including published articles on Rehabilitation of the Tuberculous, Selective Placement of Disabled Employees, Rehabilitation Is a Good Investment, The Expanded Federal-State Vocational Rehabilitation Program, A Government Program for the Vocational Rehabilitation of Disabled Civilians, and Physical Rehabilitation of the Amputee.

In several States, special attention has been given to rehabilitation of epileptics and to the organization and development of special centers for their treatment. Considerable consultation has also been given on patterns of utilizing existing facilities available in metropolitan centers or in connection with university hospitals for medical treatment and related services to epileptic persons. Other activities included consultation in connection with planning centers to train clients in the use of artificial limbs and development of hearing aid centers adapted to civilian and community needs from the pattern of Army centers for the aurally handicapped.

A special study of current practices of State vocational rehabilitation agencies in furnishing artificial limbs to clients was initiated. The findings will be used as a basis for developing recommended standards in this field, covering such immediate aspects as fitting the limb and training in the use of the artificial appliance, as well as long-range objectives such as professional standards for limb and brace making and licensing or certification.

In the field of medical social work, through meetings with related and professional organizations, four main objectives have been stressed: Interpretation of the social aspects of medical care, disability and rehabilitation of the physically handicapped; interpretation of the physical restoration program and of the use of medical social workers in such a program; promotion of personnel standards and standards of medical social practice in public programs of health and medical care; stimulation of joint consideration of needs for medical social work personnel, of the type of training needed for workers in public programs, and of improved methods of recruitment. Fifteen of the eighteen schools of social work which offer approved medical-social curricula were contacted to explain current needs for this type of personnel in State programs and to keep faculty members informed of developments in vocational rehabilitation.

By the close of the year all but 7 of the 84 State agencies had employed supervisors of physical restoration. All but three agencies had filled the position of State medical consultant. Three States had employed district medical consultants in order to make medical consultation immediately available to counselors in the district offices. Decentralization of program operations effectively points up the need for medical advice to the counselor in the diagnostic and planning stages.

Thirty-five States had secured medical social work consultants on full-time or part-time basis.

In general, State vocational rehabilitation agencies have used actively their medical advisory committees in formulating standards for buying medical service and preparing fee schedules, but a few States are not utilizing advisory groups as fully as might be hoped. By the end of the fiscal year, 66 of the 84 State agencies had formulated standards and policies for buying physical restoration services, including standards of medical diagnosis, scope of services, standards of physicians and of hospitals, and rates of payment for professional services and hospital care. The majority of the State agencies had, by the end of the year, developed fee schedules listing maximum rates of payment for medical examinations, medical and psychiatric treatment, surgical procedures, clinical laboratory tests, X-rays, dental treatment, and other physical restoration services. Some difficulties in evolving satisfactory rates have centered around rising costs and rates paid by other governmental agencies for similar services. Successful negotiation of a fee schedule that is administratively practicable and acceptable to doctors requires full use of a medical advisory committee and of real cooperation with other governmental agencies that are engaged in purchasing medical care and related services.

State programs of physical restoration made progress generally, but there still is room for some improvements. Greater stimulation of cooperative relationships with medicine societies, hospitals, and other health and welfare agencies is needed, not only at State and local levels but also at regional levels. Coordinated plans for rehabilitation of amputees should be developed, encompassing surgery, aftercare of the stump, fitting the appliance, and training in the use of the appliance. Attention also should be directed to development of services for the aurally handicapped through participation of physical restoration personnel in the planning of hearing aid centers in various key communities, adapting the best techniques of the armed forces to civilian needs.

In the extension of services to special disability groups, there is need for consideration of the problem in terms of adapting diagnostic standards, in measuring physical capacities, and in appraising job objectives that may be within the limitations of severe disabilities. More complete medical information regarding eye pathology and visual handicaps should be supplied to counselors so they may better select rehabilitation objectives which will conserve existing vision. Special attention also should be given to medical diagnosis covering other than eye disabilities.

Emphasis on development or expansion of community resources for medical treatment and other case work services to epileptic persons should be continued, preferably in connection with teaching hospitals or well-established clinics.

Development of psychiatric services for persons disabled by mental illness or emotional disturbances needs to be stepped up. Such development depends both upon leadership and the employment by State agencies of personnel with training and experience in working with mental illness. Employment of specialist personnel to deal with this group should be supplemented by considerable in-service training to all counselors on psychiatric information, personality development and the dynamics of human behavior. In-service training might also be supplemented by provision of educational leave to counselors whose background of training is deficient in this respect.

Services for the Blind

During the fiscal year, services for the blind were provided in four major categories: Rehabilitation of clients, training of State personnel through various types of institutes, field follow-up service in adapting basic training materials to specific situations in the States, and the development of additional types of training materials for State personnel.

In the first major category, that of the rehabilitation of clients, the States reported that a total of 1,419 blind persons were prepared for and placed in employment during the fiscal year. Postrehabilitation earnings of this group were estimated at the rate of about $1,762,000 a year. The majority of placements were in industrial work, including workshops for the blind. Next in number were businesses such as vending stands and neighborhood stores, followed by clerical occupations such as dictaphone operating. Some few blind persons were prepared for and placed in social work, bee keeping, rabbit farming and highway fruit markets. While these latter placements are not important numerically, they indicate the opening of new fields for the blind.

Conducting training institutes for State agency staff members who are engaged in rehabilitating the blind is one of the most important services for the blind which the Office of Vocational Rehabilitation performs. Two types of institutes were conducted during the fiscal year. One is an intensive, concentrated course of instruction for persons, generally blind, who are employed by State agencies to rehabilitate the blind into industrial production employment. The other is the orientation institute, which is conducted for blind persons, as well as sighted, in the basic philosophy underlying Public Law 113 and the fundamentals essential in the performance of the many services which are needed by blind individuals who are eligible for rehabilitation.

Plans have been made to extend the intensive, concentrated training courses to State specialists in business enterprises for the blind, the readjustment of blind persons in rural activities, the development of professional careers for the blind, and the development of special workshops and home industries.

Industrial employment counselors who serve the blind of 17 States attended two of the intensive industrial training institutes, each of which ran for 6 weeks. To the extent possible, these persons were given follow-up training in the field on the completion of the institutes to assist them in solving placement problems encountered in their States. Many previous students in these institutes were given follow-up service also, to enable them to adjust to technological changes in industry.

Despite the outstanding production records which blind workers made in wartime industries, there was apparent a tendency on the part of employers to revert to unfounded prewar attitudes in opposition to the employment of handicapped persons, and particularly the blind. Emphasis in the training institutes was placed upon methods of overcoming this resistance on the part of employers. A blind industrial specialist during one institute learns as many as 100 production operations, and the necessary steps to perform each one safely. These operations and safety practices are learned in cooperating industrial plants, under the supervision of the plant's foremen. The industrial specialist then demonstrates to employers that he can operate the machines efficiently and safely and points out that other blind persons can be trained to do the same. He obtains experience, under expert guidance, in answering the objections of employers, and follows this up with actual interviews with employers on the subject of placing well-trained blind workers in their plants. Thus he acquires practical knowledge which he uses for the benefit of the blind persons in his State at the conclusion of the institute. The mechanical training is supplemented with practical instruction in industrial management and labor problems, industrial safety, public liability insurance and workmen's compensation, and personnel relationships.

Seventy-five representatives of State agencies which serve the blind attended two orientation institutes. Ohio sent 32 persons to the institutes and Texas sent 18. Other States were represented with the following numbers: Arkansas 2, Kansas 2, Louisiana 4, Missouri 9, New Mexico 1, Oklahoma 5, and Michigan 2.

An important project was the development of materials to be used for training staff members of State agencies in developing rural activity programs for the blind. Considerable information was compiled regarding participation of blind persons in various farm and rural enterprises such as poultry and turkey raising, rabbit raising, dairy farming, mushroom growing, general farming, greenhouse and truck farming, horticulture, holly growing, and small manufacturing pursuits suitable to rural areas. (These materials were used in the first training institute for rural specialists which was held at Clarksville, Ga., beginning in October 1946.)

As an aid to State agencies, this Office issued basic materials containing essential provisions for the establishment and operation by State agencies of business enterprises programs which will serve as employment opportunities for the blind.

State agencies have been moving ahead in administrative organization for physical restoration services. In 10 States, the agency serving the blind has joined with the general vocational rehabilitation agency in establishing a single physical restoration unit, staffed with the same technical personnel and setting the same standards for purchase of services.

Considerable assistance was given to State directors in establishing rehabilitation objectives. Emphasis was placed on the need for providing services in all fields instead of concentrating on one activity such as workshops, industrial employment, vending stands or home industries.

Cooperation with the services of the blind section of the Veterans Administration for the purpose of coordinating veterans and civilian rehabilitation services on a national scale was another activity of the year.

At the request of the War Department, the Office of Vocational Rehabilitation provided a number of counseling interviews for blinded soldiers prior to their discharge from the training center at Avon, Conn., to assist them in planning future activities.

During the fiscal year more than $1,274,000 was made available to 31 commissions or other agencies furnishing rehabilitation services for the blind. Substantial additional funds for rehabilitation of the blind were included in the grants to agencies which administer programs for both seeing and blind clients.

Management Services to State Agencies

The development of the expanded program of vocational rehabilitation under Public Law 113 requires sound organizational and administrative planning on the part of each State agency. It also entails program planning which is focused on specific goals and which sets up operating plans to insure the achievement of these goals.

During the year, the Office of Vocational Rehabilitation has worked with the States in general and with particular States in the development and application of organizational and management plans for providing an adequate flow of services to the disabled. In some States this has involved the establishment of operations on a decentralized basis through a district office system. In other States additional district offices have been opened. District offices have been established in order that rehabilitation services may be made more readily available to all disabled persons. To achieve this objective, it is, of course, necessary to delegate to the district offices the authority and responsibility needed for successful operation. At the same time, provision must be made for adequate State central office reporting and control.

The development of the district office system is playing an important part in meeting the needs of the expanded program. Consideration has, however, also been given to the most effective use of rehabilitation staffs operating out of a single State office. In all instances emphasis has been placed on the importance of administrative and budgetary planning to meet the needs of the disabled in the particular State as well as to meet the needs of the disabled in the nation as a whole.

The Office of Vocational Rehabilitation has also assisted the States with such aspects of administrative management as the integration and coordination of services, the use of consultative services, the clarification of functions and responsibilities of individual positions, the evaluation of qualification standards and examining procedures and the fixing of compensation schedules.

A coded system for the issuance of official communications from the Federal Office to all State agencies was put in operation. This system has been devised to provide uniformity and consistency of approach, and to provide a ready identification of all issued materials and to simplify reference.

Further work has also been done in the preparation of qualification standards for key positions in State Divisions of Vocational Rehabilitation. The proposed standards have been discussed with organizations in the rehabilitation field and there has been a general recognition of the need for such standards. Work has also been done on the analysis of the functions and responsibilities of positions in specialized rehabilitation fields.

While progress has been made within this period in the building of a sound program of vocational rehabilitation, the needs of an expanding program require continuous evaluation by the States of the effectiveness of their organizational plans and administrative operations in order that the principal purpose in rehabilitation— that of making services available to disabled persons—may be met.

Information Services

In compliance with suggestions of the House Subcommittee to Investigate Aid to the Physically Handicapped (House Committee on Labor), and in accordance with the administrative determination of this Office that there is a need for much greater dissemination of public information concerning the Federal-State program of vocational rehabilitation for civilians, the informational services and efforts of the Office were considerably strengthened and intensified during the fiscal year.

Informational efforts were undertaken on an expanded scale in the belief that they not only inform disabled persons of the services available but also contribute to the efficiency and economy of the operation of the program:

(1) By stimulating earlier rehabilitations, which are more effective and less costly than if services are started after disease and injury have vitiated hope, determination, and skills,

(2) By convincing employers that the properly rehabilitated and properly placed person with a physical or mental handicap is an efficient and desirable employee,

(3) By increasing the understanding and cooperation of agencies which should work closely with the State vocational rehabilitation agencies, and

(4) By increasing the understanding and cooperation of the general public.

During the fiscal year the Office of Vocational Rehabilitation was able to reach a much wider segment of the general public than ever before in the short history of the Office of Vocational Rehabilitation. This increase in effectiveness was due to the acquisition of two professional writers and a motion picture consultant who was employed on a temporary basis, and the development of another writer from clerical ranks.

There is no reliable means of determining how many men and women in the United States received information concerning vocational rehabilitation as a result of the output of public information, but clippings from hundreds of daily newspapers throughout the country, which carried stories on varied aspects of the Federal-State programs, indicate that the reading audience numbered well into the tens of millions. In addition to the printed word, the story of vocational rehabilitation was also furthered by the production of 6 transcribed radio programs (of which 325 copies were distributed to the States after the close of the fiscal year) and 11 radio scripts for live broadcast.

One of the major informational undertakings was the production of a three-reel motion picture, in color and sound, for the purpose of demonstrating that rehabilitated and properly placed workers with physical or mental disabilities are as efficient and as desirable employees as unimpaired persons.

This motion picture was produced at low cost to the Government through the provision of footage shot in accordance with our script needs by Ford Motor Company, Western Electric Company, Caterpillar Tractor Company, and Bulova Watch Company. While the production was not completed during the fiscal year, it progressed to the point where success was assured and subsequent progress has corroborated that conclusion.

The picture was enhanced in value, and the cost was further reduced, by the free performances of talent from the ranks of the handicapped, including Jane Froman, the singer; Al Capp, creator of Li'l Abner and other cartoon characters; Bill Stern, the radio announcer, and Tami Mauriello, the pugilist.

During the fiscal year 1946, 20 articles for professional journals; 20 press releases for national or local publications, which gave greater newspaper coverage and greater response than ever before experienced; 5 draft press releases which were used effectively by the States after adaptation (through insertion of local names and figures); several articles for encyclopedias and other reference works; and 22 speeches were produced.

In addition, there was stimulation of beneficial articles in such publications as Look and the New York Times Sunday Magazine and the distribution of reprints of the latter to State and local offices. This has proved effective.

The office also stimulated, and assisted in the preparation of an Associated Press feature story which ran in 150 of the largest Sunday newspapers in the country.

One pamphlet—Why Be Handicapped? (150,000 copies) was produced in the fiscal year 1946 and another—A Public Service (150,000 copies) was revised and reprinted.

The following additional pamphlets were planned, designed, written, and illustrated in 1946 and will be completed and distributed during the fiscal year 1947:

(*a*) Vocational Rehabilitation for Civilians—new (250,000 copies) a basic publication for general distribution.

(*b*) Opportunities for the Deaf and the Hard of Hearing—new (50,000 copies) for distribution to the deaf and the hard of hearing and their organizations.

(*c*) Efficiency of the Impaired Worker—new (50,000 copies) for employers.

(*d*) The Doctor and Vocational Rehabilitation—new (200,000 copies) for the medical profession and suppliers of medical services.

During the fiscal year, the Office of Vocational Rehabilitation advised and assisted many State agencies individually, and all of them together, in discharging their responsibility of informing the handicapped, employers, labor, the medical profession, and the general public of the vocational rehabilitation services available, their purpose, their effectiveness, and their economic and social value.

This advice and assistance was given orally in meetings with some 50 State Directors; in direct letters in response to specific requests; through regional representatives; through the preparation of draft materials (press and radio); through circular memoranda in which suggestions on effective use of draft and other informational materials were transmitted; through the establishment and maintenance of a State Informational Exchange Service; through provision of pattern publications and posters, of which plates or stencils were made available, together with technical advice on their effective use; through development of an adaptable planned program of information activity for all States; through development of a pattern public information plan (with sample materials) for special use in opening a new office or extending additional services; and in other ways.

This service is being continued and strengthened during the current fiscal year through provision of field visits to State agencies for sufficient periods to give practical assistance in the development of informational skills, in the establishment of informational programs, and in the actual execution of informational plans.

Special Projects and/or Studies

In addition to special projects enumerated elsewhere, the following special projects and studies were either completed or some work done on them as indicated:

1. A study of the "Physical Restoration in Georgia" was completed and sent to print as was a compilation of data regarding efficiency of the impaired worker.
2. All of the forms on the study of the self-employed rehabilitated in 1942 were returned during the year. The code of the study was set up.
3. A study on amputees rehabilitated during the fiscal year 1945 was prepared for printing.
4. A study on poliomyelitis rehabilitants during the fiscal year ended June 30, 1945, was prepared.
5. Statistics for studies on persons rehabilitated during the fiscal year 1945 who were disabled from tuberculosis, visual defects, hearing defects, hernia, epilepsy, cerebral palsy, and mental disorders were prepared.
6. Conclusions of a study on placement activities of industrial specialists for the blind were prepared for use of regional representatives.
7. An article, "Vocational Rehabilitation of the Cerebral Palsied," was written and published.

SERVICES PROVIDED BY THE STATES [1]

Number of Persons Served

The 51 State rehabilitation agencies and 30 commissions for the blind (3 commissions for the blind were not in operation long enough to submit reports) reported 267,048 disabled persons on their registers during the fiscal year ended June 30, 1946, a decrease of 2.9 percent from the 275,093 on the registers of the 51 State rehabilitation agencies and the 23 commissions for the blind during the 1945 fiscal year. On the other hand, of the disabled persons on the registers, 169,794 received rehabilitation services during the 1946 fiscal year as compared with 161,050 provided such services during the 1945 fiscal year—an increase of 5.4 percent.

An analysis of the 169,794 persons who were furnished services indicates that a total of 43,242 disabled persons were placed in employment during the fiscal year 1946. Of this number, there were 36,106 cases closed as rehabilitated into employment, and the remaining 7,136 were either persons in temporary employment at the end of the year or persons in "rehabilitation employment" who were being followed up at the close of the year in order to determine whether their placements were satisfactory. The cases of 3,118 disabled persons were closed after they had received some rehabilitation services in addition to interviewing, counseling, and guidance but were not placed in employment for such reasons as personal factors, aggravated disability or death. The services of interviewing, counseling, and guidance were found sufficient to assist another 27,276 disabled persons in making a vocational adjustment, and their cases were closed without further rehabilitation services. There were 1,844 disabled persons whose cases were transferred to other rehabilitation agencies, both within the State and outside the State and to the Veterans Administration.

There were 101,450 disabled persons who had received some rehabilitation service during the current fiscal year and who, at the close of the fiscal year, were still on the rolls in various stages of the process of rehabilitation. Included in this group are the 7,136 persons mentioned above as being either in temporary employment or in "rehabilitation employment" but not yet closed as rehabilitated into employment, as well as 4,012 persons who had completed their rehabilitation process except for being placed in employment. There were 28,621 persons in the group who were being prepared for employment; 4,858 for whom preparations for employment had been started but which had been interrupted temporarily; and 56,823 persons who were undergoing diagnosis, whose cases were being evaluated, or for whom a "rehabilitation plan" was being completed before beginning the process of preparation for employment.

---

[1] **Data for fiscal year ended June 30, 1946, are as of Oct. 1, 1946, and are preliminary.**

During the fiscal year, the cases of 40,998 persons who had been reported to the State agencies and were on their registers, were closed after investigation without receiving rehabilitation services. The major reasons for the closure of these cases are as follows: Services declined, services not needed, individual not eligible, individual not sufficiently cooperative to make rehabilitation possible, individual needed services other than vocational rehabilitation, referred to other agencies, and migratory shifting by individual.

At the close of the fiscal year, there were 56,256 persons on the registers of the State agencies who were in reported status and were awaiting investigation before being accepted for rehabilitation services.

Sources of Referral of the Disabled

In order that disabled individuals who are in need of rehabilitation services and the State rehabilitation agencies and the commissions for the blind which provide such services may be brought together, the State agencies and the Office of Vocational Rehabilitation cooperate with a number of public and private agencies with related programs. These cooperative arrangements also serve to make the best use of existing facilities for the disabled and to avoid wasteful duplication of services. In addition to cases referred by these cooperating groups, cases also are referred by other interested groups and individuals such as social agencies, hospitals, churches, city and county officials, doctors, and employers. (Table 3 lists sources of new cases referred to the State agencies.)

During the 1946 fiscal year, the public welfare agencies accounted for a larger percentage (10.8 percent) of the total number of cases referred than did any other type of agency. This source was followed closely by the public schools (9.9 percent), the United States Employment Service (9.7 percent), and the State workmen's compensation agencies (8.8 percent). The number of cases that were self-referred accounted for 9.6 percent of the total, and 8.2 percent of the referrals came from individuals other than physicians, public officials, and employers. Health agencies as a group referred 19.1 percent, and educational sources referred 12.4 percent of the new cases.

Services Purchased for the Disabled

The State rehabilitation agencies and the commissions for the blind provide a large number of specialized rehabilitation services to the disabled, in addition to the regular general rehabilitation services of interviewing, counseling, guidance, and placement. Some of these specialized services are obtained without cost to the agencies and others are purchased.

During the fiscal year, diagnostic examinations were purchased for 56,671 disabled persons, a 38.9 percent increase over the 40,786 for whom such examinations were purchased in the preceding fiscal period. Diagnostic services consisted of medical examinations for 53,512, a 37.6 percent increase over the 38,896 in 1945; psychiatric examinations for 1,050, a 39.1 percent increase over the 755 for the corresponding period of a year ago; and psychological examinations for 2,109, an 85.8 percent increase over the 1,135 in the 1945 fiscal year.

Medical, psychiatric, surgical, dental, and other treatments were purchased for 7,217 disabled persons, a 92.3 percent increase over the 3,753 treatments purchased in the 1945 fiscal year.

Prosthetic appliances were purchased for 8,287 disabled persons, a 1.9 percent increase over 8,135 in the preceding period.

A marked increase in the number of clients hospitalized was also evident. A total of 5,570 persons received hospital care purchased by the State agencies. This represents an increase of 104.6 percent over 1945, when 2,723 patients were hospitalized. Convalescent home care was furnished for 107 persons, a 98.1 percent increase over the 54 cases in the 1945 fiscal year. Physical and occupational therapy were provided for 364 persons, an 89.6 percent increase over the total of 192 in the corresponding period a year back. Eighteen persons received nursing care in the fiscal year just ended, compared to 13 in the 1945 fiscal year, an increase of 38.5 percent.

Training is one of the basic services provided for disabled persons by State agencies as a means of preparing them for employment. During the recent war years, the large variety of war production training activities that were available, without cost, provided unlimited opportunities for training. The conclusion of these war training activities, and the termination of hostilities had a marked effect upon the type of training provided for vocationally handicapped persons by the States. Instead of the short intensive training for jobs in war industries, disabled persons now need and are provided more comprehensive and thorough training for employment in peacetime pursuits. Data are not available for those disabled persons who were provided training without cost to the State agencies; data are available, however, concerning the number for whom training was purchased.

In the 12-month period ended June 30, 1946, training was purchased for 33,547 disabled persons—an increase of 25.9 percent over 26,642 in the preceding fiscal period. Of the 1946 group, 25,028 persons received training in educational institutions such as colleges, universities, business schools, and the like, compared to 19,965 who received the same kind of training in the 1945 fiscal year—an increase of 25.4 percent; 4,311 received training on the job in the period just ended, a 24.7 percent increase over 3,457 last year; 1,707 received correspondence training for a 24.2 percent increase over 1,374 last year; 2,501 received tutorial instruction, a 35.5 percent increase over 1,846 in the preceding fiscal period.

In order to provide training, it was necessary to provide transportation for 4,243 persons, a decrease of 8.9 percent in the 4,655 of the preceding year, and maintenance for 15,366 persons during the training period, an increase of 39.9 percent over 10,984 in 1945. Also, training supplies and equipment were purchased for 16,218 disabled persons, an increase of 16.7 percent over the total of 13,898 the preceding year.

In connection with the placement of disabled persons in employment, the purchase of placement equipment increased 120 percent in 1946 over 1945—1,208 disabled persons receiving this type of assistance compared to 549. Occupational licenses were provided for 234 persons, compared to 172 in the preceding fiscal year, an increase of 36 percent.

Characteristics of and Services to Persons Rehabilitated in the Fiscal Year 1946 [1]

An indication of the contribution which the vocational rehabilitation program makes to society through the rehabilitation of disabled persons, can be obtained from a study of the characteristics of and the services to disabled persons rehabilitated into employment.

During the fiscal year ended June 30, 1946, there were 36,106 disabled persons rehabilitated into employment, of whom 27,066, or 75 percent, were males. Approximately 87 percent of the rehabilitants were white, and about 12 percent were Negro.

At the time these persons were surveyed by the State agencies for consideration of their acceptability for rehabilitation services, over half (53.2 percent) were between 15 and 30 years of age. Approximately 75 percent of the group were unemployed at the time of survey, and 16 percent of the group had never worked. Although about 39 percent of the group were supporting themselves at the time they were surveyed, either through independent income or wage earnings, about 40 percent were dependent upon their families, about 6 percent were receiving either public or private relief, and about 5 percent were receiving either unemployment or workmen's compensation. Approximately 43 percent of this group of disabled persons who were rehabilitated had one or more dependents.

---

[1] Data presented in this section are estimates obtained by adjusting data from preliminary tabulations of 16,926 rehabilitated persons to the total of 36,106 rehabilitated persons.

Disabilities of Rehabilitated Persons

An analysis of the disabilities of this group of rehabilitated persons indicates that about 31 percent of the persons had disabilities that originated in employment or other accidents, about 48 percent originated in disease, 16 percent were congenital, while about 5 percent resulted from either military or civilian war service. Approximately 41 percent of these rehabilitants were under the age of 15 at the time of disablement, and about 34 percent were between the ages of 15 and 30. This makes a total of 75 percent of the group having disabilities that originated before they were 30 years of age, and who, after having received rehabilitation services, would have many years in which those services would contribute advantageously both to the individual and to society.

As in former years, disabled persons with various types of orthopedic involvements, amputations, and congenital absence of members constitute approximately half of the disabled persons rehabilitated into employment during the current fiscal year. Disabled persons with orthopedic impairments resulting from other than poliomyelitis and cerebral palsy totaled 9,881; resulting from poliomyelitis, 2,320; and resulting from cerebral palsy, 516. Disabled persons with amputations or congenital absence of members totaled 5,169. There were 3,948 persons who were blind or visually defective, 2,795 deaf or with hearing defects, and 305 with speech defects.

Mental illness was the disability of 1,961 of the disabled persons, while 3,022 had pulmonary tuberculosis, 1,372 had hernias, 1,115 had cardiac diseases (except those resulting from rheumatic fever), 387 had asthma, 302 had a cardiac disease resulting from rheumatic fever, and 2,891 had diseases other than those specifically mentioned here. The disabilities of 122 disabled persons were not reported.

Training Provided and Placements Made

These disabled persons were provided counseling and guidance, and, where needed, physical restoration and/or training, according to definite plans for preparing them for employment consistent with their mental and physical capacities. Some type of training was provided for 39 percent of the group. Of those trained, 23 percent were trained in business establishments, 21 percent in colleges or universities, 19 percent in business colleges, 13 percent in private trade schools, 9 percent in public vocational schools, 2 percent in defense training classes, and the remaining 13 percent were provided tutorial, correspondence school, and other such types of training.

Proper placement of disabled persons, after counseling, guidance, and adequate preparation for employment through physical restoration and training, makes possible job adjustments of considerable variation. Approximately 20 percent of the disabled persons rehabilitated during the current fiscal year were placed as mechanics of various kinds, watchmakers, jewelers, and in other skilled occupations. About 17 percent were placed as clerks, general office workers, stenographers, bookkeepers, and in other clerical and kindred occupations. Approximately 15 percent were placed in semiskilled occupations and 14 percent in service occupations, while 9 percent were placed in unskilled jobs. About 9 percent were placed in positions as teachers, accountants, draftsmen, and in other professional and semiprofessional positions. The remaining 16 percent were placed in managerial, sales, and related positions, or became farmers, farm laborers or unpaid family workers.

Earnings Increased After Rehabilitation

As was pointed out earlier in this section, at the time of application for rehabilitation services, only 39 percent of this group of 36,106 rehabilitated persons were supporting themselves, and only 25 percent of the total group were employed. In order to be eligible for services, these persons must have been in danger of losing their jobs or in employment that was substantially below their highest capabilities. On the basis of the status at the time of application for rehabilitation services, without the advantages that result from these services, the total of annual earnings of the group was estimated at about $11,600,000. After rehabilitation, the rate of annual earnings of these disabled persons, not including family workers, farmers and others whose earnings were difficult to estimate, was an estimated $56,300,000—an increase of almost 400 percent over the estimated total annual earnings of the group before rehabilitation.

Some form of support must be provided for every permanently disabled person, which often has meant public or private assistance at an average yearly cost per case of $300 to $600; such assistance, however, is only a temporary palliative. Vocational rehabilitation services are provided at an average cost of $300 per rehabilitated case, which is a nonrecurring expenditure. The results of this investment, from a statistical standpoint, have been pointed out in the above paragraphs. There are no financial yardsticks to measure the differences between a self-reliant citizen carrying his own responsibilities and making a contribution to the society of which he is a part, and a depressed citizen dependent upon charity. Those differences, however, mean more than dollars and cents in terms of happiness, good citizenship, and social usefulness.

District of Columbia Rehabilitation Service

The case load of the District of Columbia Rehabilitation Service reached an all-time high of 4,106 disabled individuals in the fiscal year.

Cases remaining on the roll on July 1, 1946, totaled 2,716 as compared with 1,187 on July 1, 1945. During the fiscal year 1946, 342 disabled clients completed their rehabilitation.

The various services rendered during the fiscal year consisted of counsel and guidance, including psychological, occupational and manual dexterity tests. Physical restoration services included 984 physical and psychiatric examinations, medical treatments for 42 persons, of whom 17 were hospitalized with a total of 422 days of hospitalization. Artificial appliances were purchased for 96 clients, and training was provided to 139 persons.

Medical officers of the Office of Vocational Rehabilitation provided consultative services in an effort to strengthen relationships between the District of Columbia Rehabilitation Service and the physicians of Washington and thereby develop resources for medical examination. This need became increasingly apparent when the United States Public Health Service dispensary was forced to curtail the amount of diagnostic service formerly rendered to clients of the District of Columbia Rehabilitation Service.

During the fiscal year, a new program of case finding was initiated. This Service made a complete survey of the case load of the Public Assistance Division, Board of Public Welfare. This survey involved a study of approximately 4,000 cases, which resulted in the referral of about 250 cases receiving public assistance. A study of records of traffic accidents was also made to determine the number of persons who are currently becoming disabled as a result of accidents and who need rehabilitation services. Referral of almost 1,000 individuals resulted. Plans for case finding surveys were made with other private and public agencies.

A Rehabilitation Advisory Council was established to provide guidance to this Service with respect to development of standards for the program and its interpretation to the community. The Council is composed of four committees: Medical Advisory Committee, Committee on Services for the Visually Handicapped, Labor Management Committee, and Committee on Council Membership. Typical of the work of these committees is that of the Labor-Management Committee, which developed plans for interpreting to employer and employee groups the services which are available to eligible disabled persons.

APPENDIX

TABLE 1.—*Summary of case load during fiscal year ended June 30, 1946*

[Corrected to Oct. 1, 1946]

United States total of cases registered		267, 048
1. Cases receiving services		169, 794
a. Closed—rehabilitated—placement in employment following services	36, 106	
b. Closed—rehabilitation services—interview, counseling, guidance	27, 276	
c. Closed—serviced—not employed [1]	3, 118	
d. Closed—transferred to other agency	1, 844	
e. Live-case roll [2]	101, 450	
2. Cases reported and closed after investigation [3]		40, 998
3. Cases reported [4]		56, 256

---

[1] Serviced, not employed because of personal factors, illness, aggravated disability, death.

[2] In process of rehabilitation on June 30, 1946.

[3] Services declined; services not needed; individual not eligible; individual not sufficiently cooperative to make rehabilitation possible; individual needing services other than vocational rehabilitation, referred to other agencies; migratory shifting by individual.

[4] Reported—status not determined.

Source: Forms RA100A, Consolidated Case Load Flow Sheets.

TABLE 2.—*Total case load, by region and State, during fiscal year ended June 30, 1946*

[Corrected to Oct. 1, 1946]

Region and State	Total	Number closed as—					Number on rolls	
		Rehabilitated into employment	Interviewed and counseled	Serviced not employed [1]	Reported and investigated [2]	Transferred to other Agency	Live-case roll [3]	Reported [4]
United States total	267, 048	36, 106	27, 276	3, 118	40, 998	1, 844	101, 450	56, 256
Region I total	26, 549	3, 780	3, 092	331	5, 501	228	10, 087	3, 530
Connecticut	4, 392	721	256	38	185	20	2, 449	723
Connecticut (blind)	56	14	5	3	0	2	32	0
Maine	1, 716	203	119	32	601	2	504	255
Maine (blind)	66	9	8	11	6	0	23	9
Massachusetts	3, 403	405	436	59	743	12	1, 103	645
New Hampshire	785	72	132	5	244	6	326	0
New Hampshire (blind)	41	2	9	0	2	0	24	4
New York	13, 467	2, 115	1, 939	137	2, 693	176	4, 791	1, 616
New York (blind)	6	0	0	0	0	0	6	0
Rhode Island	782	129	147	19	8	4	473	2
Rhode Island (blind)	92	23	7	5	4	2	41	10
Vermont	1, 634	80	30	19	1, 011	3	252	239
Vermont (blind)	109	7	4	3	4	1	63	27
Region II total	41, 044	3, 966	4, 946	447	7, 716	179	14, 706	9, 084
Delaware	1, 978	268	75	71	832	23	529	180
Delaware (blind)	54	17	1	7	3	0	23	3
District of Columbia	4, 106	342	385	39	609	15	1, 227	1, 489
Maryland	3, 199	389	175	40	351	84	1, 348	812
New Jersey	3, 800	569	792	132	146	19	1, 967	175
New Jersey (blind)	332	47	40	11	0	14	211	9
Pennsylvania	13, 728	736	1, 996	76	3, 718	3	3, 776	3, 423
Virginia	6, 248	825	646	27	598	18	2, 893	1, 241
West Virginia	7, 599	773	836	44	1, 459	3	2, 732	1, 752
Region III total	70, 436	10, 175	6, 240	708	5, 686	602	28, 653	18, 372
Alabama	8, 715	1, 450	517	117	613	54	4, 384	1, 580
Florida	3, 790	600	926	108	291	64	1, 689	112
Florida (blind)	649	15	44	24	4	5	479	78
Georgia	26, 960	2, 400	1, 221	120	2, 279	154	7, 931	12, 855
Mississippi	3, 967	670	706	66	255	16	1, 994	260
Mississippi (blind)	421	21	67	0	28	0	274	31

See footnotes at end of table.

TABLE 2.—*Total case load, by region and State, during fiscal year ended June 30, 1946*—Continued

Region and State	Total	Number closed as—					Number on rolls	
		Rehabilitated into employment	Interviewed and counseled	Serviced not employed [1]	Reported and investigated [2]	Transferred to other States	Live-case roll [3]	Reported [4]
Region III—Continued								
North Carolina	6, 852	2, 031	380	29	98	3	4, 044	267
North Carolina (blind)	1, 324	60	13	19	54	4	750	424
Puerto Rico	3, 425	340	287	8	446	2	1, 223	1, 119
South Carolina	5, 670	1, 463	860	91	360	212	2, 283	401
South Carolina (blind)	503	52	50	11	21	4	353	12
Tennessee	7, 677	1, 044	1, 143	103	1, 225	73	2, 880	1, 209
Tennessee (blind)	483	29	26	12	12	11	369	24
Region IV total	46, 049	8, 074	4, 739	646	5, 110	399	19, 879	7, 202
Illinois	7, 827	1, 278	1, 559	75	767	166	3, 462	520
Indiana	4, 922	736	760	31	267	48	2, 865	215
Indiana (blind)	194	0	11	0	7	0	175	1
Kentucky	6, 703	1, 511	393	59	902	16	1, 967	1, 855
Michigan	11, 849	2, 203	498	161	1, 578	61	4, 496	2, 852
Michigan (blind)	982	93	121	35	67	13	582	71
Ohio	5, 304	1, 025	778	81	263	43	2, 781	333
Ohio (blind)	864	87	113	15	65	25	495	64
Wisconsin	7, 275	1, 104	496	175	1, 189	25	3, 004	1, 282
Wisconsin (blind)	129	37	10	14	5	2	52	9
Region V total	11, 698	1, 281	781	90	1, 945	78	4, 881	2, 642
Iowa	2, 786	349	311	17	836	0	1, 034	239
Iowa (blind)	40	5	3	0	1	0	12	19
Minnesota	5, 542	536	254	26	805	25	2, 495	1, 401
Minnesota (blind)	745	99	50	14	71	1	298	212
Nebraska	1, 054	74	54	6	165	2	274	479
Nebraska (blind)	51	6	2	0	0	9	29	5
North Dakota	1, 173	153	89	18	62	19	549	283
South Dakota	272	50	18	9	5	22	165	3
South Dakota (blind)	35	9	0	0	0	0	25	1
Region VI total	29, 505	5, 139	3, 939	276	2, 696	179	12, 234	5, 042
Arkansas	4, 567	541	637	14	784	17	1, 771	803
Kansas	1, 919	179	253	38	157	33	879	380
Kansas (blind)	257	37	57	23	8	1	118	13
Louisiana	3, 885	676	1, 148	46	328	4	1, 107	576
Louisiana (blind)	301	38	58	9	23	6	141	26
Missouri	3, 189	765	754	22	214	13	1, 212	209
Missouri (blind)	585	85	113	25	37	4	285	36
New Mexico	788	71	86	23	95	36	330	147
New Mexico (blind)	73	4	0	0	1	3	51	14
Oklahoma	3, 920	898	292	40	245	17	2, 074	354
Texas	8, 218	1, 723	437	22	606	45	3, 787	1, 598
Texas (blind)	1, 803	122	104	14	198	0	479	886
Region VII total	5, 767	567	653	35	570	57	2, 413	1, 472
Colorado	961	57	214	8	10	24	485	163
Idaho	980	96	122	10	198	0	163	391
Idaho (blind)	32	0	0	1	1	0	15	15
Montana	1, 240	201	82	3	227	3	427	297
Montana (blind)	85	5	6	2	1	1	42	28
Utah	1, 929	155	188	10	107	9	1, 039	421
Wyoming	540	53	41	1	26	20	242	157
Region VIII total	36, 000	3, 124	2, 886	585	11, 774	122	8, 597	8, 912
Arizona	1, 184	94	203	25	240	3	382	237
California	22, 467	2, 292	1, 611	480	6, 337	99	5, 826	5, 822
Hawaii	5, 935	123	166	10	3, 669	3	388	1, 576
Nevada	182	17	38	0	19	1	99	8
Oregon	3, 650	310	748	11	1, 170	3	789	619
Oregon (blind)	450	27	47	2	146	4	87	137
Washington	1, 922	229	72	31	190	9	898	493
Washington (blind)	210	32	1	26	3	0	128	20

---

[1] Serviced, not employed because of personal factors, illness, aggravated disability, death.

[2] Services declined; services not needed; individual not eligible; individual not sufficiently cooperative to make rehabilitation possible; individual needing service other than vocational rehabilitation, referred to other agencies; migratory shifting by individual.

[3] In process of rehabilitation on June 30, 1946.

[4] Reported—status not determined.

Source: Forms RA 100A, Consolidated Case Load Flow Sheets.

TABLE 3.—*Number of new cases received, by source of referral, during fiscal year ended June 30, 1946*

[Corrected to Oct. 1, 1946]

	Total		State rehabilitation agencies		Commissions for the blind	
	Number	Percent	Number	Percent	Number	Percent
Total	[1]114,520	100.0	[1]109,703	100.0	[1]4,817	100.0
Educational, total	14,240	12.4	13,994	12.8	246	5.1
Business college	1,006	.9	1,004	.9	2	(2)
Private school	1,178	1.0	1,171	1.1	7	.1
Public school	11,347	9.9	11,229	10.3	118	2.4
State school for handicapped	709	.6	590	.5	119	2.6
Health, total	21,904	19.1	21,668	19.8	236	4.9
Crippled children's agency	6,000	5.2	5,998	5.6	2	(2)
State mental hospital	232	.2	229	.2	3	.1
Tuberculosis sanatorium	3,993	3.5	3,992	3.6	1	(2)
Marine hospital or relief station	1,154	1.0	1,151	1.0	3	.1
Other hospital or clinic	3,335	2.9	3,242	3.0	93	1.9
Other health agency	3,741	3.3	3,715	3.4	26	.5
Physician	3,449	3.0	3,341	3.0	108	2.3
Insurance, total	12,828	11.2	12,812	11.7	16	.3
Insurance company	178	.2	178	.2	0	--------
Bureau of Old Age and Survivors Insurance	50	(2)	49	(2)	1	(2)
State workmen's compensation agency	10,126	8.8	10,119	9.3	7	.1
U. S. Employees Compensation Commission	2,474	2.2	2,466	2.2	8	.2
Welfare, total	14,798	12.9	12,539	11.4	2,259	46.9
American Red Cross	1,018	.9	1,005	.9	13	.3
Public welfare agency	12,403	10.8	10,301	9.4	2,102	43.6
Private welfare agency	1,377	1.2	1,233	1.1	144	3.0
Other Government agencies, total	24,993	21.8	24,282	22.1	711	14.8
Selective Service System	4,840	4.2	4,831	4.4	9	.2
State rehabilitation agency	3,188	2.8	2,759	2.5	429	8.9
U. S. Employment Service	11,101	9.7	10,919	10.0	182	3.8
Veterans Administration	2,166	1.9	2,108	1.9	58	1.2
War Shipping Administration	467	.4	466	.4	1	(2)
Public official	3,231	2.8	3,199	2.9	32	.7
Miscellaneous, total	25,757	22.6	24,408	22.2	1,349	28.0
Artificial limb company	1,158	1.0	1,157	1.1	1	(2)
Employer	793	.7	770	.7	23	.5
Labor union	107	.1	106	.1	1	(2)
News items, publicity, etc	1,576	1.4	1,556	1.4	20	.4
Other individual	9,402	8.2	9,088	8.3	314	6.5
Self-referred	10,898	9.6	9,990	9.0	908	18.9
Other	1,823	1.6	1,741	1.6	82	1.7

[1] Differs from total of new cases reported on Consolidated Case Load Flow Sheets Forms RA100A.
[2] Less than 0.05 percent.

Source: Forms VR:RS7, Sources of New Cases.

TABLE 4.—*Number of individuals for whom services were purchased, by type of such services, during fiscal year ended June 30, 1946*

[Corrected to Oct. 1, 1946]

Type of service	Total	State rehabilitation agencies	Commissions for the blind
Examinations, total	56,671	53,513	3,158
Medical	53,512	50,474	3,038
Psychiatric	1,050	1,036	14
Psychological	2,109	2,003	106
Treatment, total	7,217	6,789	428
Medical	1,834	1,704	130
Psychiatric	268	264	4
Surgical	4,331	4,095	236
Dental	558	509	49
Other	226	217	9
Prosthetic appliances, total	8,287	8,007	280
Artificial limb(s)	3,473	3,462	11
Braces	1,002	1,001	1
Hearing aids	1,081	1,060	21
Glasses	1,592	1,380	212
Surgical	776	749	27
Repair of appliance(s)	337	329	8
Other	26	26	0
Training, total	33,547	32,104	1,443
Educational institution	25,028	24,434	594
Employment	4,311	3,984	327
Correspondence	1,707	1,702	5
Tutorial	2,501	1,984	517
Maintenance, total	16,052	15,116	936
Medical	686	652	34
Training	15,366	14,464	902
Transportation, total	7,898	7,227	671
Examinations	1,865	1,784	81
Medical	1,790	1,579	211
Training	4,243	3,864	379
Auxiliary services, total	17,713	17,050	663
Training supplies and equipment	16,218	15,790	428
Placement equipment	1,208	988	220
Occupational licenses	234	228	6
Other	53	44	9
Hospitalization, total	5,570	5,248	322
Convalescent home, total	107	105	2
Physical and occupational therapy, total	364	363	1
Nursing care, total	18	14	4

Source: Forms VR:RS6, Number of individuals—Services purchased.

TABLE 5.—*Number of persons rehabilitated into employment, by type of job in which they were placed, fiscal year ended June 30, 1946* [1]

[Corrected to Oct. 1, 1946]

Type of job or occupation	Number	Percent of total
Total	36,106	100.0
Professional, total	2,080	5.8
Accountants and auditors	235	.7
Teachers, primary	295	.8
Teachers, secondary	347	1.0
Other	1,203	3.3
Semiprofessional, total	1,233	3.4
Draftsmen	254	.7
Laboratory technicians	405	1.1
Other	574	1.6
Managerial and official, total	661	1.8
Retail managers	231	.6
Other	430	1.2
Clerical and kindred, total	6,237	17.3
Bookkeepers	1,011	2.8
Clerks, general office, etc	2,022	5.6
Office machine operators	220	.6
Pay roll clerks	165	.5
Secretaries	420	1.2
Shipping and receiving clerks	233	.6
Stenographers and typists	1,028	2.9
Stock clerks	443	1.2
Other	695	1.9
Sales and kindred occupations, total	1,666	4.6
Sales clerks	475	1.3
Sales persons	334	.9
Other	857	2.4
Service occupations, total	4,989	13.8
Housekeepers, domestic	371	1.0
Personal	1,194	3.3
Waiters and waitresses	288	.8
Kitchen workers	310	.9
Barbers and beauticians	438	1.2
Attendants, hospital	158	.4
Protective	790	2.2
Guards and watchmen	436	1.2
Soldiers, sailors, and marines	354	1.0
Building service	1,135	3.1
Janitors	503	1.4
Porters	403	1.1
Elevator operators	229	.6
Other	1,499	4.2
Agriculture, fishing, etc., total	2,385	6.6
Farmers	1,229	3.4
Farm hands	757	2.1
Other	399	1.1
Skilled, total	7,052	19.7
Shoemakers	397	1.1
Watchmakers, jewelers	715	2.0
Machinists	271	.8
Welders	160	.4
Carpenters	299	.8
Mechanics, airplane	90	.2
Mechanics, auto	550	1.5
Mechanics (other), and repairmen	911	2.5
Other	3,659	10.4

See footnotes at end of table.

TABLE 5.—*Number of persons rehabilitated into employment, by type of job in which they were placed, fiscal year ended June 30, 1946* [1]—Continued

Type of job or occupation	Number	Percent of total
Semiskilled, total	5,291	14.7
Textile workers	537	1.5
Machine shop	199	.6
Drivers, truck, bus, etc	953	2.6
Attendants, filling station, etc	299	.8
Airplane mechanic helpers	24	.1
Aircraft assembler	28	.1
Laundry worker	220	.6
Repairman	162	.4
Other	2,869	8.0
Unskilled, total	3,343	9.3
Laborers:		
Construction	263	.7
Transportation (except railroad)	122	.3
Process, textiles	173	.5
Other	2,785	7.8
Unpaid family worker	1,086	3.0
Not reported	83	(2)

[1] Estimates based on preliminary tabulations of 16,926 individuals.
[2] Excluded from distribution.

Source: Forms VR: RS9, Closed Case Reports.

TABLE 6.—*Total expenditures from Federal and State funds for vocational rehabilitation by State boards of vocational education during the fiscal year ended June 30, 1946*

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Administration	Vocational guidance and placement	Purchased services
United States total	[1] $12,662,244.24	$9,081,959.69	$3,580,284.55	$928,301.99	$4,540,996.31	$7,192,945.94
Region I total	1,639,723.99	1,185,802.29	453,921.70	125,093.31	597,856.77	916,773.91
Connecticut	326,031.55	230,082.84	95,948.71	28,036.73	106,097.40	191,897.42
Maine	108,327.03	73,330.39	34,996.64	6,159.37	32,174.39	69,993.27
Massachusetts	204,591.32	155,584.34	49,006.98	20,352.69	87,658.15	96,580.48
New Hampshire	35,912.96	25,056.27	10,856.69	1,559.23	12,640.35	21,713.38
New York	823,909.50	604,832.49	219,077.01	57,788.20	317,825.78	448,295.52
Rhode Island	63,832.48	42,895.34	20,937.14	4,401.49	17,334.21	42,096.78
Vermont	77,119.15	54,020.62	23,098.53	6,795.60	24,126.49	46,197.06
Region 11 total	1,900,212.30	1,396,030.95	504,181.35	136,490.86	746,584.15	1,017,137.29
Delaware	100,696.64	73,926.63	26,770.01	5,766.04	41,390.58	53,540.02
District of Columbia	135,895.13	110,895.13	25,000.00	9,270.03	69,747.37	56,877.73
Maryland	151,629.01	117,909.63	33,719.38	11,252.98	72,937.28	67,438.75
New Jersey	310,888.59	232,606.53	78,282.06	22,826.75	130,740.31	157,321.53
Pennsylvania	661,392.09	473,687.90	187,704.19	15,530.95	229,313.28	376,547.86
Virginia	224,152.53	161,829.02	62,323.51	2,733.99	86,771.53	124,647.01
West Virginia	315,558.31	225,176.11	90,382.20	19,110.12	115,683.80	180,764.39
Region III total	3,083,356.60	2,151,236.55	932,120.05	192,573.53	1,023,052.98	1,867,730.09
Alabama	311,243.44	205,362.53	105,880.91	20,831.90	78,649.72	211,761.82
Florida	320,958.63	239,198.65	81,759.98	23,401.70	133,319.86	164,237.07
Georgia	860,095.95	617,529.02	242,566.93	54,684.72	319,776.45	485,634.78
Mississippi	267,475.88	191,939.59	75,536.29	18,665.00	97,643.87	151,167.01
North Carolina	461,087.48	296,763.34	164,324.14	23,823.21	107,679.86	329,584.41
Puerto Rico	166,572.80	110,971.77	55,601.03	14,066.99	40,676.76	111,829.05
South Carolina	321,285.36	222,394.97	98,890.39	17,433.44	105,456.72	198,395.20
Tennessee	374,637.06	267,076.68	107,560.38	19,666.57	139,849.74	215,120.75

[1] Based on reports from States, subject to audit.

TABLE 6.—*Total expenditures from Federal and State funds for vocational rehabilitation by State boards of vocational education during the fiscal year ended June 30, 1946*—Continued

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Administration	Vocational guidance and placement	Purchased services
Region IV total	$2, 622, 189. 82	$1, 828, 662. 05	$793, 527. 77	$211, 208. 08	$820, 850. 12	$1, 590, 131. 62
Illinois	578, 189. 26	436, 429. 77	141, 759. 49	49, 601. 60	243, 092. 49	285, 495. 17
Indiana	394, 660. 08	245, 304. 88	149, 355. 20	31, 754. 28	64, 077. 41	298, 828. 39
Kentucky	223, 095. 95	164, 554. 17	58, 541. 78	13, 936. 31	92, 031. 54	117, 128. 10
Michigan	612, 024. 86	417, 419. 90	194, 604. 96	56, 374. 43	166, 391. 01	389, 259. 42
Ohio	309, 588. 27	216, 215. 58	93, 372. 69	24, 402. 40	98, 440. 49	186, 745. 38
Wisconsin	504, 631. 40	348, 737. 75	155, 893. 65	35, 139. 06	156, 817. 18	312, 675. 16
Region V total	477, 735. 93	351, 010. 86	126, 725. 07	39, 091. 73	185, 144. 09	253, 500. 11
Iowa	129, 918. 41	101, 583. 58	28, 334. 83	7, 924. 33	65, 324. 43	56, 669. 65
Minnesota	148, 526. 83	108, 485. 86	40, 040. 97	13, 574. 67	54, 850. 22	80, 101. 94
Nebraska	85, 721. 74	68, 037. 76	17, 683. 98	7, 694. 81	42, 658. 98	35, 367. 95
North Dakota	76, 903. 66	49, 551. 39	27, 352. 27	6, 578. 03	15, 621. 09	54, 704. 54
South Dakota	36, 665. 29	23, 352. 27	13, 313. 02	3, 319. 89	6, 689. 37	26, 656. 03
Region VI total	1, 535, 251. 32	1, 127, 988. 01	407, 263. 31	107, 707. 93	612, 908. 30	814, 635. 09
Arkansas	171, 603. 18	133, 425. 63	38, 177. 55	12, 381. 21	82, 866. 87	76, 355. 10
Kansas	118, 908. 59	89, 253. 06	29, 655. 53	9, 241. 51	50, 356. 02	59, 311. 06
Louisiana	223, 035. 37	162, 132. 23	60, 903. 14	15, 495. 72	85, 733. 38	121, 806. 27
Missouri	201, 161. 87	145, 251. 71	55, 910. 16	11, 976. 67	77, 364. 88	111, 820. 32
New Mexico	39, 601. 73	30, 133. 68	9, 468. 05	4, 023. 50	16, 633. 64	18, 944. 59
Oklahoma	256, 682. 42	188, 251. 73	68, 430. 69	18, 706. 95	101, 114. 09	136, 861. 38
Texas	524, 258. 16	379, 539. 97	144, 718. 19	35, 882. 37	198, 839. 42	289, 536. 37
Region VII total	257, 766. 80	190, 126. 91	67, 639. 89	19, 234. 80	103, 106. 80	135, 425. 20
Colorado	39, 909. 38	30, 944. 83	8, 964. 55	4, 558. 15	17, 276. 69	18, 074. 54
Idaho	32, 021. 66	23, 539. 61	8, 482. 05	2, 480. 48	12, 577. 08	16, 964. 10
Montana	84, 724. 03	61, 058. 38	23, 665. 65	7, 002. 18	30, 390. 55	47, 331. 30
Utah	75, 296. 34	54, 690. 11	20, 606. 23	3, 540. 70	30, 543. 19	41, 212. 45
Wyoming	25, 815. 39	19, 893. 98	5, 921. 41	1, 653. 29	12, 319. 29	11, 842. 81
Region VIII total	1, 146, 007. 48	851, 102. 07	294, 905. 41	96, 901. 75	451, 493. 10	597, 612. 63
Arizona	43, 849. 87	32, 502. 01	11, 347. 86	2, 825. 04	18, 307. 87	22, 716. 96
California	810, 355. 43	604, 456. 55	205, 898. 88	69, 496. 94	321, 610. 57	419, 247. 92
Hawaii	48, 645. 98	39, 284. 56	9, 361. 42	6, 101. 89	23, 821. 26	18, 722. 83
Nevada	10, 255. 15	7, 523. 66	2, 731. 49	691. 39	4, 100. 79	5, 462. 97
Oregon	107, 766. 19	75, 007. 26	32, 758. 93	7, 887. 14	34, 030. 76	65, 848. 29
Washington	125, 134. 86	92, 328. 03	32, 806. 83	9, 899. 35	49, 621. 85	65, 613. 66

TABLE 7.—*Total expenditures from Federal and State funds for vocational rehabilitation of the blind by State commissions or agencies for the blind during the fiscal year ended June 30, 1946*

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Administration	Vocational guidance and placement	Purchased services
United States total	[1] $1,087, 244. 21	$920, 279. 25	$166, 964. 96	$112, 809. 01	$640, 505. 45	$333, 929. 75
Region I total	59, 452. 56	52, 216. 05	7, 236. 51	8, 932. 27	36, 047. 30	14, 472. 99
Connecticut	2, 519. 25	2, 227. 00	292. 25	514. 22	1, 420. 53	584. 50
Maine	8, 660. 10	6, 878. 51	1, 781. 59	763. 98	4, 332. 94	3, 563. 18
New Hampshire	4, 924. 31	4, 845. 55	78. 76	794. 09	3, 972. 71	157. 51
New York	16, 710. 57	15, 891. 26	819. 31	4, 193. 31	10, 878. 65	1, 638. 61
Rhode Island	16, 306. 52	14, 043. 66	2, 262. 86	1, 890. 65	9, 890. 16	4, 525. 71
Vermont	10, 331. 81	8, 330. 07	2, 001. 74	776. 02	5, 552. 31	4, 003. 48
Region II total	75, 848. 88	67, 248. 11	8, 600. 77	12, 424. 12	46, 223. 24	17, 201. 52
Delaware	15, 172. 82	12, 374. 50	2, 798. 32	1, 855. 58	7, 720. 61	5, 596. 63
New Jersey	49, 434. 88	43, 632. 43	5, 802. 45	5, 101. 52	32, 728. 47	11, 604. 89
Pennsylvania	11, 241. 18	11, 241. 18		5, 467. 02	5, 774. 16	
Region III total	358, 103. 44	285, 437. 00	72, 666. 44	28, 559. 39	184, 211. 19	145, 332. 86
Florida	66, 362. 94	57, 268. 18	9, 094. 76	6, 367. 77	41, 805. 66	18, 189. 51
Mississippi	40, 212. 32	32, 488. 31	7, 724. 01	2, 333. 37	22, 430. 93	15, 448. 02
North Carolina	186, 259. 36	139, 294. 96	46, 964. 40	13, 559. 83	78, 770. 73	93, 928. 80
South Carolina	27, 870. 54	24, 330. 85	3, 539. 69	2, 133. 61	18, 657. 56	7, 079. 37
Tennessee	37, 398. 28	32, 054. 70	5, 343. 58	4, 164. 81	22, 546. 31	10, 687. 16
Region IV total	289, 020. 28	251, 426. 02	37, 594. 26	30, 367. 63	183, 464. 16	75, 188. 49
Indiana	10, 883. 58	9, 278. 70	1, 604. 88	1, 940. 77	5, 733. 06	3, 209. 75
Michigan	126, 211. 83	105, 723. 08	20, 488. 75	12, 335. 55	72, 898. 79	40, 977. 49
Ohio	121, 280. 14	108, 503. 41	12, 776. 73	12, 398. 80	83, 327. 89	25, 553. 45
Wisconsin	30, 644. 73	27, 920. 83	2, 723. 90	3, 692. 51	21, 504. 42	5, 447. 80
Region V total	58, 380. 38	50, 338. 88	8, 041. 50	5, 099. 17	37, 198. 23	16, 082. 98
Iowa	3, 986. 10	3, 682. 27	303. 83	347. 95	3, 030. 49	607. 66
Minnesota	29, 120. 33	24, 538. 84	4, 581. 49	1, 631. 02	18, 326. 34	9, 162. 97
Nebraska	15, 300. 52	14, 161. 14	1, 139. 38	2, 029. 10	10, 992. 67	2, 278. 75
South Dakota	9, 973. 43	7, 956. 63	2, 016. 80	1, 091. 10	4, 848. 73	4, 033. 60
Region VI total	201, 121. 86	174, 307. 38	26, 814. 48	23, 015. 05	124, 477. 89	53, 628. 92
Kansas	14, 239. 86	12, 593. 55	1, 646. 31	1, 444. 02	9, 503. 23	3, 292. 61
Louisiana	25, 962. 73	23, 259. 33	2, 703. 40	3, 032. 06	17, 523. 88	5, 406. 79
Missouri	49, 480. 25	43, 943. 14	5, 537. 11	4, 487. 23	33, 918. 80	11, 074. 22
New Mexico	3, 644. 41	2, 763. 53	880. 88	549. 55	1, 333. 11	1, 761. 75
Texas	107, 794. 61	91, 747. 83	16, 046. 78	13, 502. 19	62, 198. 87	32, 093. 55
Region VII total	13, 653. 10	11, 295. 32	2, 357. 78	1, 408. 38	7, 529. 16	4, 715. 56
Idaho	4, 080. 51	3, 887. 97	192. 54	665. 66	3, 029. 77	385. 08
Montana	9, 572. 59	7, 407. 35	2, 165. 24	742. 72	4, 499. 39	4, 330. 48
Region VIII total	31, 663. 71	28, 010. 49	3, 653. 22	3, 003. 00	21, 354. 28	7, 306. 43
Oregon	13, 820. 82	11, 859. 77	1, 961. 05	1, 770. 81	8, 127. 92	3, 922. 09
Washington	17, 842. 89	16, 150. 72	1, 692. 17	1, 232. 19	13, 226. 36	3, 384. 34

---

[1] Based on reports from States, subject to audit.

SECTION FOUR

PUBLIC HEALTH SERVICE

FOREWORD

This year of reconversion has been a time of unprecedented public interest in the health problems of the Nation. Freed from the tasks of war, we in America have once again turned our attention to the more fruitful tasks of peace. Having preserved freedom, we are more than ever determined to use that freedom to make our country a better place in which to live. High among the goals which we have set for ourselves in the coming years is the improvement of our national health.

This new concern with problems of health springs from many sources. In part, it is a result of the conditions revealed by Selective Service examinations. In part, it is due to the dramatic advances made in certain fields of medical science in recent years. Another factor is the experience of our service men and women, millions of whom have known, for the first time, the benefits of comprehensive medical care and preventive medicine. They have returned home with new concepts of what can and should be accomplished in their own communities.

Interest in health is by no means limited to the solution of immediate problems. On every hand, we find evidence of long-range planning to meet the problems of the future. This is true in communities where there is an increasing trend toward the development of integrated programs for the orderly expansion of community facilities and services. It is true on the national level, where there has been an active interest both in a broad national health program and in the wide variety of health legislation which has been introduced in the Congress. It is true also in the field of international health, as shown by the world-wide interest in a more positive, more comprehensive approach to world health problems. This year is notable for three milestones in the history of public health: (1) passage of the Hospital Survey and Construction Act, (2) passage of the National Mental Health Act, (3) drafting a constitution for the World Health Organization. Each of these marks a step forward in the concept of public health functions. Each holds great promise for future accomplishments.

Hospitals and Health Facilities

The Hospital Survey and Construction Act provides for extensive Federal aid to States in surveying their needs for hospitals and health centers, and for construction of facilities to meet these needs. Of an authorized $3,000,000 Congress appropriated $2,350,000 for administration and for grants to States for surveys; the act also authorizes an appropriation of $375,000,000 during the next 5 years for construction. In each case, two-thirds of the cost must be met by non-Federal funds. Each State must complete a State-wide survey and develop a comprehensive State plan before Federal funds can be granted for construction. Survey funds will be allotted on the basis of population. Construction funds will be allotted on the basis of population and per capita income, those States with lower income receiving more per capita than the wealthier States.

The significance of this act goes beyond the aid it will provide in the development of badly needed health facilities. For the first time, a national policy is established whereby hospitals and health centers are to be planned, located, and operated in relation to the over-all health needs of the people. This policy has been evolved by hospital leaders who recognize their responsibility to help bring essential health services to the maximum number of people, with maximum efficiency.

Mental Health

The National Mental Health Act marks the first coordinated, large-scale attack on a problem which has been dramatized during the war by Selective Service rejections, by the psychiatric experience of our armed forces, and by the overcrowding and understaffing of our civilian mental institutions. The war, however, only called attention to a condition which was already acute. Mental disorders today affect, in some degree, an estimated 8,000,000 Americans, and fill more than half of the hospital beds in the Nation. The annual economic loss due to hospitalized cases alone was estimated at $1,000,000 a decade ago; since that time, the population of our mental hospitals has increased by one-half. The role of psychiatric disorders in causing juvenile delinquency and crime, as well as personal inefficiency and unhappiness is becoming increasingly evident. Yet our existing hospitals are inadequate to care even for the most seriously ill. We have but a fraction of the clinics and out-patient services needed to treat mild cases or to care for progressive disorders before they become disabling. We are woefully short of trained personnel of all kinds. Research has been restricted out of all proportion to the importance of the problem to our national welfare.

This act authorizes the appropriation of $7,500,000 for the construction of a National Institute of Mental Health which is to conduct research, serve as a national center for the coordination of research and the exchange of information, and provide advanced training for specialists in this field. The annual appropriation authorized for assistance to the States in their public health programs is increased by $10,000,000 to cover the new mental health activities. These funds will be used to support research and to help the States establish mental health services, especially for prevention and early treatment. This act is the first permanent legislation authorizing grants to educational institutions, a significant feature in view of the present shortage of facilities for training personnel in this and other fields of public health. The National Advisory Mental Health Council has been appointed and has met to lay the ground work for the program which will be ready to operate as soon as funds are appropriated.

Another progressive measure adopted by the Congress authorizes Federal departments and agencies to set up employee health programs, providing treatments of on-the-job illness and emergency dental treatment, medical examinations, referral services, and preventive programs. The function of the Public Health Service in this connection will be to consult with agencies establishing new programs and, upon request, to review those already in operation.

Measures covering many other phases of health were introduced during the last session of Congress. Never before has there been such a broad and active interest in health legislation. Among the significant bills discussed were: a comprehensive national health program, control of stream and river pollution, and Federal support for research in medicine, dentistry, and science in general.

International Health

The Constitution of the World Health Organization, adopted at the International Health Conference of the United Nations in New York City in July 1946, sets forth a new philosophy of international health relations and establishes the framework for an organization of greater scope and authority than any previously created. The proposed functions go far beyond merely preventing the spread of disease. The Constitution defines health not merely as the absence of disease or infirmity, but as a state of complete physical, mental, and social well-being. It declares enjoyment of the highest attainable standard of health to be a fundamental right of every human being. The Constitution further maintains that world health depends upon the achievement of sound national health, and that it is in the interest of those nations which are more advanced in health matters to assist less fortunate nations. It holds that unequal development of public health is a common danger, and that the health of all peoples is necessary for world peace and security.

It is the intent of the framers of the Constitution that all existing international health agencies be brought into relationship with the new organizaion, and that the way be left open for the admission of all nations, including nonmembers of the United Nations. The organization will come into being when its Constitution has been ratified by 26 of the United Nations. In the meanwhile, an Interim Commission is carrying on preliminary activities, such as working out relationships with the Pan American Sanitary Bureau and other international agencies. Members of the Public Health Service staff, including the Surgeon General, have taken an active part in the development of the World Health Organization. They have participated in preliminary meetings, in the session of the Technical Preparatory Committee in Paris in March, in the International Health Conference in New York City, and are now serving on the Interim Commission.

Public Health and Health Activities in the United States

With only a few exceptions, the communicable disease situation in this country has been favorable during the past year. The outstanding exceptions were the epidemic of respiratory disease during the winter, the increased incidence of diphtheria, the outbreak of oriental smallpox on the Pacific coast early this year, and the continued prevalence of poliomyelitis, which has been epidemic in 1946 for the fourth consecutive year.

The provisional death rate for the Nation in 1945, excluding the armed forces overseas, was the same as that for 1944—10.6 per 1,000. Provisional data for the first 5 months of 1946 show a slight increase over the corresponding period of 1945, from 10.8 to 10.9.

The development of new health organizations, interrupted by the war, has been hampered by continuing personnel shortages during the past year. Increasing appropriations by State legislatures, however, are making it possible to expand health services as rapidly as personnel resources permit. The Public Health Service has supported this expansion by grants-in-aid, by speeding demobilization of its reserve officers, and by helping to recruit and train personnel.

The stimulus given to tuberculosis control throughout the country in the first 2 years of the Public Health Service program is reflected in the fact that there are now more than 700 miniature film X-ray units in use by official and voluntary agencies. During the past year, emphasis has been placed on four aspects of the problem: the value of routine chest X-rays for all patients on admission to hospitals; the practicability of mass surveys in rural areas by means of mobile X-ray units; the rehabilitation of the tuberculous patient to economic self-sufficiency; and the need for additional treatment facilities. The Hospital Survey and Construction Act should do much to solve this latter problem.

With further development of the rapid treatment methods for venereal disease, and the expansion of facilities for their application, there has come a shift of emphasis in the venereal disease control program. Stress is now being laid on the problems of finding new cases and of tracing and bringing to treatment as many contacts as possible. A new technique which has given excellent results is the community survey, in which civic organizations, city authorities, and the press are mobilized in support of an intensive mass blood-testing program. Keynotes of the future program will be public education, training of personnel, and active cooperation in community efforts for venereal disease control and social hygiene.

Many new problems in industrial hygiene have been presented by recoversion and by the introduction of new processes of manufacture. There has been an acute shortage of trained personnel to deal with these conditions. The increased funds available for grants-in-aid for the coming year, however, will be of great assistance to the States in expanding their industrial hygiene programs to meet growing demands, including the need for services in small plants.

The program of malaria control in war areas has fulfilled its mission, and activities have been redirected toward an attack on the permanent foci of malaria. This work, and the coordinate programs for the control of typhus, dengue, and other diseases of tropical origin will be carried on by the newly established Communicable Disease Center in Atlanta, Ga. State and local health departments are participating more and more in these undertakings as personnel and funds become available. The center also provides specialized training for representatives of State and local health departments and of other Federal agencies concerned with these diseases.

Funds for grants-in-aid to States for cancer control programs are specifically provided, for the first time, in the budget for 1946–47, which allocates $2,500,000 for this purpose. Cancer control work is also being aided by the award of increasing numbers of traineeships, through which physicians obtain clinical training in the diagnosis and treatment of cancer at hospitals throughout the country.

Research at the National Cancer Institute has been accelerated by the release of scientists from war work, and many promising projects are being approved for research grants to private individuals and institutions. Among Public Health Service investigations are a series of cooperative studies in radiobiology. The findings of animal experiments have been useful in formulating basic standards for the protection of human beings against known cancer-producing irradiations.

There has been a similar expansion in other types of research conducted or supported by the Public Health Service. Under the research grants program, the Service has undertaken to continue many of the valuable medical investigations sponsored by the Office of Scientific Research and Development during the war. The program is now being administered on a permanent peacetime basis, and nonmilitary projects are increasing. In the coming year, emphasis will be placed on clinical and laboratory investigations of antibiotics and on broader studies of malaria and syphilis.

At the National Institute of Health, the wartime program of testing antimalarial drugs has been continued, and among the 392 tested experimentally during the year, some were found to be from 32 to 128 times as active as quinine. In the work on experimental tuberculosis, it was found that an antibiotic and a sulfone were three times as effective when given together as when given separately. New compounds, synthesized for use against experimental tuberculosis and influenza virus, have shown high activity and low toxicity in animals. Evaluations of the sulfonamides in the treatment of dysentery were completed.

Clinical studies on ringworm of the scalp have developed more effective treatments, and have shown that children need not be segregated or taken out of school to control outbreaks of this disease.

A new narcotic drug developed at the Institute has a prolonged action and may prove valuable as a substitute for morphine. Among other drugs being tested in a cooperative program are several developed in Germany and previously unknown in this country.

A recently developed mumps vaccine has shown promise in early studies with human subjects. A standard control virus for testing rabies vaccine has been developed, and a tentative test has been devised for whooping-cough vaccine. As a result of improvements in the production of amebiasis antigen for the complement fixation test, a commercial antigen has been placed on the market.

Renewed attention is being devoted to the diseases of old age, such as impaired kidney function. Significant findings have been made in the study of experimental shock. Other important studies are concerned with Q fever, tropical diseases, homologous serum jaundice, nutrition, the production and standardization of biologic products, and other subjects.

Increasing use is being made of demonstrations in various fields of public health. Early results from one such project have indicated that the occurrence of dental caries can be reduced by more than one-third by the application of fluorides to the surfaces of the teeth. New demonstrations include a dental care program for school children, one for the study and detection of malnutrition, one to develop methods for the early diagnosis of heart disease on a mass survey basis, and one of the control of some 40 animal diseases transmissible to man. A demonstration of the early diagnosis and control of diabetes mellitus is being planned.

In marine hospitals, an extended program of physical medicine and rehabilitation is under way. Postgraduate training has been further developed, and research by staff members is being actively encouraged.

Foreign quarantine regulations were revised during the year, due to new problems resulting from rapid air and sea transportation. Quarantine services are being provided at newly established airports of entry in the interior, and steps have been taken to deal with the problem of emergency landings by incoming aircraft. Medical officers are again being assigned to United States Consulates overseas for the examination of prospective immigrants.

While the numbers of officers detailed for wartime service to such agencies as the Coast Guard, War Shipping Administration, and the United Nations Relief and Rehabilitation Administration have been greatly reduced since VJ-day, the Service continues to assign personnel to advise and assist numerous other Government agencies in the conduct of medical and public health programs. During the past fiscal year, officers were on detail to nine departments and more than a dozen other agencies of the Federal Government, as well as UNRRA and the Pan-American Sanitary Bureau. Service personnel participated in the strategic bombing survey of Japan, and continued to staff the Public Health Service Mission to Liberia. At the close of the fiscal year, 43 commissioned officers had been awarded military decorations in recognition of their wartime services in all theaters of operations.

Administration

The organization of the Public Health Service has continued to follow the broad outlines laid down in the reorganization of 1943. During the fiscal year 1946, one new division was established—the Division of Nursing, in the Office of the Surgeon General. This Division supervises all nursing activities and nursing personnel of the Public Health Service, and is responsible for functions formerly administered by the Division of Nurse Education.

Recruiting for the Cadet Nurse Corps stopped after the surrender of Japan, and all enrollments ceased on October 15, 1945. Students previously enrolled, however, may complete their training, and the program will be continued until their graduation.

At the request of the Surplus Property Board, the Office of Surplus Property Utilization was established in the State Relations Division in July 1945, and operated until October 1, 1946. It assisted in administering the sale of surplus goods to State and local health agencies on the preferential terms set forth in the Surplus Property Act. In the National Institute of Health, the Research Grants Office has been established to administer the program of grants-in-aid for research on problems other than cancer. This became the Research Grants Division on August 12, 1946.

Two other changes went into effect with the end of the fiscal year. The establishment of the Communicable Disease Center, replacing the Office of Malaria Control in War Areas, has been referred to above. The Office of Health Education and Training, including the Negro Health Section, was transferred to the Bureau of State Services as the Office of Public Health Education; the Professional Education Section remains in the Division of Public Health methods.

Under the President's Reorganization Plan No. 2, effective July 16, 1946, the Vital Statistics Division was transferred from the Bureau of the Census, Department of Commerce, to the Public Health Service. It is designated as the National Office of Vital Statistics, and functions as part of the Office of the Surgeon General. Thus the Public Health Service is now the Federal agency having chief responsibility for the collection, analysis, and publication of national vital statistics. These include data on the incidence and prevalence of disease, as well as on births, stillbirths, deaths and causes of death, and marriages and divorces.

With the enactment of the Hospital Survey and Construction Act in August 1946, the Hospital Facilities Section of the State Relations Division was reconstituted as the Division of Hospital Facilities under the Bureau of State Services. Its staff will be increased to meet the responsibilities placed upon the Service by this law. The Federal Hospital Council, established under the act, held its first meeting in September. An advisory committee has also been appointed to consult with the Council and the Surgeon General regarding administration of the act.

The Federal Hospital Council is unique in that the law gives it administrative as well as advisory duties. This represents a further development in the tendency, which has been increasing in recent years, to give professional and interested lay groups a larger voice in public health programs. At present there are 12 other advisory bodies associated with the Public Health Service: National Advisory Health Council, National Advisory Mental Health Council, Mental Hospital Survey Committee, Advisory Council of Nurses to the Employees Health Service Advisory Committee to the Division of

Nursing, Advisory Committee on Public Education, National Advisory Cancer Council, Sanitation Advisory Board, Board for the Control of Biological Products, Committee of Consultants in Dermatology, Committee on Postwar Training of Public Health Personnel, and Advisory Committee on Leprosy in the United States.

The establishment of a peacetime health program is being seriously hampered by problems of personnel. With the release of large numbers of reserve officers, the Service is having increasing difficulty in competing with private employers and with the opportunities of private practice for the services of physicians, nurses, sanitary engineers, and other personnel with the requisite ability and experience. The question of salaries is of primary importance in this respect, particularly in the commissioned corps. Some relief has been afforded by the raise which became effective in August, the first since 1922; but this increase, scaling down from 20 percent in the two lower grades to 10 percent for majors and above, is small in proportion to the accumulated cost-of-living increases of 24 years. Other modifications of the basic law are needed to bring personnel policy more into line with the times with respect to promotion, retirement, and in-service training. Some of these were incorporated in legislation which was introduced in the last Congress, but did not find a place on the crowded calendar.

Greater flexibility also appears desirable in certain other aspects of the law. There are, for example, certain deficiencies in the provisions for research, such as became evident recently when the Service was unable to sponsor an important project because its funds could not be used for a necessary expansion of laboratory facilities. There is need, also, for clarification of the question of authority for aid to accredited schools of public health. At a time when lack of trained personnel is a major handicap to the development of public health agencies of every kind, such aid is urgently needed; yet it is not clear, as the law now stands, whether it may legally be given.

Conclusion

We look forward to the coming year with assurance that it will prove to be a period of substantial progress in the field of public health. There is ample evidence that our States and communities are alert to the opportunities for progress, and anxious to expand their public health activities; funds and personnel should become increasingly available for this purpose as the transition from war to peace is completed. Two national programs of great significance have been authorized, and there are no signs of a slackening of interest in America's health problems.

Two broad frontiers of public health remain. One of these is the area of chronic diseases, particularly those of old age. As we have gained victories over the major communicable diseases, conditions such as heart disease, cancer, and diabetes have moved to the fore as causes of death. We are today intensifying our efforts to combat them.

The second frontier is the extension of necessary health services to all of our citizens. Today there are not nearly enough physicians, dentists, nurses, and other health personnel to go around, nor enough hospital beds and clinics to take care of our minimum needs. Those we have are unevenly distributed, so that many areas have no doctors and no health facilities of any kind. And finally, we have yet to solve the economic problems of medical care; we have yet to make it possible for everyone, regardless of income, to obtain the basic services needed for the protection of his own health and that of his neighbors. These are our basic objectives for the future. We approach them with confidence, knowing that the American people are united in demanding better health conditions as a basic human right.

THOMAS PARRAN,
Surgeon General.

OFFICE OF THE SURGEON GENERAL

The constituent units of this office are under the direct supervision of the Surgeon General and the Deputy Surgeon General. They include five divisions: The Division of Commissioned Officers, the Dental Division, the Sanitary Engineering Division, the Division of Nursing, and the Division of Public Health Methods. Also included are the Office of International Health Relations, the Office of the Executive Assistant and the Budget and Fiscal Office.

Office of the Executive Assistant.—This office includes the Office of Personnel, the Chief Clerk's Office, and the Office of Purchase and Supply.

The Office of Personnel is concerned with the recruitment, classification, appointment, and training of more than 13,000 administrative and other non-commissioned personnel. The present chief personnel officer was assigned in November 1945. Efforts have been directed toward: (1) A thorough review of the methods and procedures of personnel operations, to obtain a modern closely knit personnel service; (2) developing a service policy that emphasizes the integration of personnel services and operational planning; and (3) planning and initiating requests for a staff of sufficient professional breadth and competence that the vital health programs entrusted to the Public Health Service will be speedily and adequately staffed.

The Chief Clerk's Office is in charge of all buildings and office quarters, printing and binding, mail and files, and employee activities.

With the close of hostilities, the Allied Joint Chiefs of Staff vacated the permanent Public Health Service Building at 1901 Constitution Avenue, NW. This structure was therefore reoccupied in January 1946. This relieved the acute shortage of office space at Bethesda, Md., and also enabled the Service to vacate the Blaine Building and the space occupied in the Dupont Circle Apartments Building by the Division of Nurse Education. During the year an additional building was completed on the National Institute of Health grounds and occupied by Headquarters divisions.

The total number of pieces of incoming mail and telegrams for the fiscal year was 1,101,509, and the outgoing correspondence numbered 479,220 pieces. The system of periodic destruction of obsolete or useless papers continued in operation and resulted in the disposal of a quantity of files sufficient to fill sixty-two 4-drawer file cases.

Responsibility for obtaining supplies and equipment for the Service was centralized in the Office of Purchase and Supply a little more than a year ago. The number of shipments of medical supplies made from the supply station at Perry Point, Md., was about one-third greater in the fiscal year 1946 than in 1945. There was a far greater increase in dollar value of supplies purchased centrally through the use of a special revolving fund. During the latter year, the Office handled 9,663 requisitions and 12,992 purchase orders in providing $3,796,550 worth of material and services including stationery, office equipment, etc., in addition to medical supplies.

During the war, supply difficulties were, of course, very great due both to personnel and supply shortages. During the reconversion period, the problem of obtaining supplies and equipment has continued and even been accentuated in some cases. One important move toward expediting supply is the beginning of delegation to the field stations of authority to make certain additional transactions within the framework established centrally. During the coming year, a special effort is being made to facilitate the more rapid flow of supplies and minimize central transactions.

Budget and Fiscal Office.—This Office is responsible for the preparation of estimates for appropriations required for the operation of the Service, and for the maintenance of accounts for the control of appropriated funds. Appropriations for the fiscal year 1946 totaled $142,305,380; funds received by transfer and reimbursement amounted to $5,764,318.65. The fiscal statement of the Public Health Service is presented in table 1 of the appendix.

Division of Commissioned Officers

The Division of Commissioned Officers is responsible for the recruitment, examination, appointment, promotion, transfer, training, retirement, and all related service concerning commissioned personnel and interns.

At the close of the fiscal year there were 2,512 officers on active duty. A break-down by corps and type is given in table 1. Ninety Regular and 11 Reserve officers were on retired status and there were 2,858 Reserve officers on the inactive list.

Congress increased the authorized strength of the regular corps from 650 to 902 during the year. This increase included 150 nurses, 132 medical, 13 dental, and 7 sanitary engineer officers.

Nurses, dietitians, and physical therapists were commissioned for the first time in the regular corps during the year under authority of the Public Health Service Act of 1944. Last fiscal year the first scientists, three in number, were appointed on June 30, 1945.

A total of 401 Reserve officers were appointed, and 211 new appointments were made in the regular corps.

There were 232 promotions in the regular corps, of which 159 were temporary, and 492 promotions in the reserve. Four hundred and twenty-six candidates were examined for appointment to the regular corps, 182 of whom attained passing grades. Through arrangements with the Army, the Service obtained 110 medical officers who were trained under the Army specialized training program.

During the year, 1,221 Reserve and 22 Regular officers were relieved from active duty by resignation, termination, inactivation, or retirement. These releases were highlighted by the reduction of officers assigned to the Coast Guard from 611 on July 1, 1945, to 164 by the end of the fiscal year. Similar reductions were made in officers assigned to War Shipping Administration—from 200 to 40—and to a lesser extent with UNRRA, whose officer complement decreased from 210 to 152.

To date 43 military decorations have been awarded to Service officers. In addition, numerous letters of commendation and appreciation have been received. Five Service officers were killed in action during the war. Ten others died while serving with other branches of the military forces or while the Service itself was a branch of the military forces.

Surgeons James A. Grider and Virgil J. Dorset, who were captured by the Japanese at the fall of the Philippines, were freed by American troops on September 15, 1945, after more than 3 years' imprisonment. Both have returned to duty. Surgeon Floyd A. Hawk died on February 8, 1945, in a Japanese prisoner-of-war camp.

Deputy Surgeon General Warren F. Draper completed his duties with the War Department, as Chief of the Public Health Branch, G5, Supreme Headquarters, Allied Expeditionary Forces, and was released by the War Department on September 17, 1945. General Draper's service was recognized by the award of the Distinguished Service Medal.

At the request of the High Commissioner of the Philippines, Assistant Surgeon General Howard F. Smith, who during the war had served as medical aide to General MacArthur, was assigned as chief public health adviser on the High Commissioners staff and chief Public Health Service representative for the far eastern area.

At the request of the Secretary of War, Assistant Surgeon General L. R. Thompson was assigned as Chief of the Medical Division of the United States Strategic Bombing Survey, for the purpose of assessing the effects of aerial bombardment upon Japan from a health and sanitation standpoint. Six commissioned officers and one administrative officer accompanied Dr. Thompson.

On May 29, 1946, the Surgeon General approved a reorganization of the division, into five sections: Recruitment, Assignments and Utilization, Training, Special Services, and Administration.

TABLE 1.—*Commissioned officers on active duty as of June 30, 1946*

	Regular	Reserve
Medical	590	585
Dental	72	212
Sanitary engineer	51	----------
Engineer (all types)	----------	177
Pharmacist	3	17
Scientist	11	----------
Sanitarian	----------	193
Nurse	87	473
Dietitian	5	26
Physical therapist	1	9
Total	820	1,692

Dental Division

Sixty-six dental officers of the regular corps and 151 of the reserve corps were on active duty at the end of the year. Since the cessation of active hostilities, 158 officers have been released or have had their commissions inactivated. This reduction has been made in accordance with terms of prescribed Service policy. Tours of duty and assignments during the year varied greatly during the time maximum strength was being maintained with the greatest number of dental officers being assigned to the United States Coast Guard. Other assignments were made through the Bureau of Medical Services to the marine hospitals and relief stations, the War Shipping Administration, Federal penal and correctional institutions, and the Farm Security Administration.

Twelve dental officers were on duty with the States Relations Division. Part of their duties has been to render consultative services to the various State and local health agencies through the district offices of the Service. They have also conducted demonstration programs in dental health in cooperation with the State and local authorities when such requests have been made by these departments.

During the year an additional dental officer was assigned to the Liberian Mission, and a total of three dental officers were on duty with the United Nations Relief and Rehabilitation Administration. One regular corps officer was on duty with the Office of Indian Affairs and one with the Office of Surplus Property Utilization.

Dental treatment was rendered to 491,138 patients during the year. With a sharp reduction in the number of officers on duty, the stations of the Service have continued to operate at maximum capacity in order to provide the dental treatment demanded by legal beneficiaries. Approval of Public Law 410, in July 1944, greatly widened the scope of dental treatment to which beneficiaries were legally entitled, and an increased work load devolved upon all stations at the time when professional dental personnel were being reduced in number. Demands for restorative and prosthetic dental appliances have increased in keeping with the broadened scope of dental treatment.

The major items of clinical services rendered by full-time dental officers are enumerated in table 1. This table does not include dental services rendered by contract dental surgeons employed in areas where demands for dental treatment are not sufficient to justify the assignment of a full-time dental officer. Remuneration for this type of service is made on a fee-for-service schedule.

The increased demand for prosthetic dental appliances necessitated an expansion of the use of commercial dental laboratory facilities.

The total number of beneficiaries who received dental treatment has decreased from the preceding year. This is due to the reduction of the total number of dental officers on active duty. It is anticipated that the demand for adequate dental care will continue to increase due in part to the greater amount of leisure time which beneficiaries will have to devote to receiving health services and in part to the growing appreciation and awareness of the paramount importance of sound dental health.

TABLE 1.—*Clinical services rendered by full-time dental officers*

Number of patients treated	491, 138
Number of in-patient treatments	149, 764
Number of out-patient treatments	1, 485, 114
Total number of treatments	1, 634, 878
Special services rendered:	
X-rays taken	109, 043
Prophylaxes	73, 816
Extractions	129, 661
Special services rendered—Continued	
Alveolectomies	9, 950
Fillings	339, 794
Dentures	20, 939
Vincent's infection treatments	16, 287
Pyorrhea treatments	7, 128
Fracture treatments	875
Bridges	1, 395
Crowns	1, 907
Prosthetic repairs	6, 987
Other operations	438, 658

Sanitary Engineering Division

The Sanitary Engineering Division directs all engineering and sanitation operations of the Service. It is responsible for professional and technical supervision of all sanitation personnel, provides technical guidance and consultant services, and establishes uniform sanitary engineering policies and programs in the Service.

Operating within the Division are the following sections: Administrative, General Sanitation, Milk and Food, Land and Air Carrier, Vessel Engineering, and Vessel Sanitation. The Water and Sanitation Investigations Station located at Cincinnati, Ohio, also is attached to the Division.

The executive officer of the Division maintains liaison with Public Health Service bureaus, divisions, district offices, and other Government agencies and departments with respect to personnel assignments and coordination of sanitary engineering programs and activities.

The newly designated Land and Air Carrier Section became responsible for certification of water supplies and watering points for interstate carriers. This Section also undertook consultant services to air and land carriers. The compilation of the monthly Public Health Engineering Abstracts of scientific articles published in domestic and foreign journals was reassigned to this new section. The Division continued the enforcement of regulations providing for the safety of drinking and culinary water supplies, milk and food supplies, and general sanitary facilities of common carriers engaged in interstate traffic.

Administrative Section

Recruitment of engineering and sanitation personnel was continued. Examinations were held for appointment to the regular corps. Three hundred fifty-four engineering and sanitation officers were on duty at the close of the year. Fifty-five held commissions in the regular corps, and 299 held reserve commissions. Eighty-two technical civil service employees were on the rolls.

General Sanitation

The publication of lists of shellfish shippers whose certifications are endorsed by the Public Health Service was continued. These lists were supplied to some 1,800 local health authorities for their information and assistance in protecting local markets from shellfish obtained from contaminated areas or improperly handled after harvesting. A seminar for Public Health Service personnel newly assigned to shellfish sanitation activities was conducted in Norfolk.

A survey to determine the sanitation facilities needed in cities and local communities throughout the country was begun in August 1945, and continued through the fiscal year. The estimated cost of construction to fill the needs of 3,850 communities, surveyed as of the end of the fiscal year, out of a total 20,387 local communities of 200 population or more amounted to $2,187,025,000.

A survey of 908 of the 3,091 counties in the United States shows rural sanitation needs, in the counties surveyed, amounting to $616,907,840. On the basis of these figures, a forecast of the total value of sanitation facilities needed in the United States, figured at 1946 costs, probably exceeds $8,900,000,000.

At the request of State and local health authorities, and on the recommendation of the National Advisory Health Council, efforts have been made to develop standards on housing sanitation and to explore the relationship between housing and health.

Milk and Food Section

The supervision of the policies and technical phases of the milk and food sanitation program was continued. This included preparation and revision of sanitary standards recommended for State and local control of milk, restaurants, and frozen desserts; advisory service to States through field and office consultations with district milk and food specialists and the Milk and Food Section; supervision of milk and food handling on interstate carriers; preparation of educational and training materials; cooperation with other agencies; and compilation of disease outbreaks conveyed through milk and milk products, foods other than milk products, and water.

The recommended Public Health Service milk ordinance is in State-wide effect in four States and Territories, as well as in 1,084 municipalities and 192 counties located in 39 States, with a population of 27,000,000. It has been adopted as a State regulation in 25 of these States. The recommended restaurant standards are in State-wide effect in 16 States, as well as in 172 counties and 348 municipalities located in 37 States with a population of 40,000,000. The restaurant standards have been adopted as State regulations in 25 of these States.

During the year, 7 mobile laboratories assigned to district offices for assistance to States in sanitation programs examined milk samples in 121 communities and restaurant utensil swabs in 219 communities in 22 States. Comprehensive milk sanitation surveys were conducted by the districts in six communities. Restaurant sanitation ratings were made of 15 municipalities in cooperation with State authorities. In-service training of sanitarians was made available through 11 milk and restaurant sanitation seminars attended by 648 State and local sanitarians.

War conditions were responsible for considerable deterioration of milk quality and restaurant sanitation. This is illustrated by the findings of the mobile laboratories during 1945. The grade A bacterial standards were met by only 45 percent of the 433 raw milk supplies and only 42 percent of the 397 pasteurized milk supplies examined in 103 communities in 13 States. Similarly, of over 56,000 utensils sampled from 5,684 eating establishments in 213 cities, only 12 percent of the establishments and only 26 percent of the utensils complied with the bacterial standard. Of 1,484 utensils examined from 125 dining cars of 21 railways, only 14 percent met the standard.

For this reason emphasis has been continued on the education of food and milk handlers in sanitary work habits. During the fiscal year, 32 demonstration schools for milk producers and milk plant employees were conducted by the District offices, with an attendance of 3,162; 54 schools for restaurant workers, including food handlers from National Park Service, Indian Service, and marine hospitals, were attended by 15,523 persons; five schools for railway dining car personnel had an attendance of 8,621; and one school in food handling sanitation was held for 2,630 high school students. Organized food handler schools are now being conducted by 30 States and 96 cities and counties. The preparation of educational and training materials for use at such schools has continued; a 3-reel, sound, motion picture entitled Small Milk Plant Operation and a teaching manual entitled Guide to Safe Food Service have been completed.

Since the early part of 1944, milk pasteurization plants with a capacity of approximately 11,000 gallons a day have been constructed in 46 communities or groups of communities having a total population of 238,506. There remain about 392 communities or groups of communities with a population of 2,000 or more in which pasteurized milk is not available.

Reports from State health departments compiled for 1944 showed 393 communicable disease outbreaks involving 20,376 cases. Of these, 32 outbreaks were traced to water, 41 to milk and milk products, 298 to other foods, and 22 to undetermined vehicles. While outbreaks attributed to water declined during the war years, and those from milk showed no significant change, a steady increase in outbreaks and cases traced to other foods was apparent.

Land and Air Carrier Section

Some 1,600 certificates on water supplies and 3,800 certificates on watering points were issued to land, air, and vessel carriers. The certification of the watering-point facilities includes a consideration of the watering equipment, the sanitary facilities at coachyards and terminals, such as platforms, drainage, and the cleaning of conveyances. The necessary field work for the most part was carried on by the various State health departments with the guidance and assistance of the District engineers.

Two revisions of the Sanitation Manual for Land and Air Conveyances Operating in Interstate Traffic, relating to hydrants and conveyances having food-handling facilities, were drafted and presented to the Joint Committee on Railway Sanitation. On the insistence of the Service, the Association of American Railroads has established a research project to study the problem of excreta disposal from railway conveyances.

A Joint Committee on Airline Sanitation, comprised of representatives of the industry and the Service, held its first meeting in December 1945. Work has been started on a separate manual on airline sanitation and certain of the aircraft manufacturers have been contacted relative to features of sanitation in plane design.

A comprehensive policy covering all aspects of land and air carrier sanitation was adopted for the guidance of the district and State health departments. Provision has been made for the submittal of plans on watering points and conveyances. Sections of the proposed Interstate Quarantine Regulations concerning land and air common carriers have been submitted to both the Association of American Railroads and the Air Transport Association for their consideration.

Considerable assistance has been given to manufacturers of certain equipment used on carriers. For example, the manufacturers of plumbing supplies have made the necessary changes in their fixtures to prevent backflow in drinking water systems on carriers.

A limited amount of experimental work on food temperatures and storage in aircraft was done at the National Institute of Health. This work provided factual data with which to rate the efficiency of various types of aircraft equipment concerned.

Vessel Engineering Section

The primary function of this Section is the guidance of sanitary aspects of the construction of new vessels and the reconstruction and repair of existing vessels. The activities of the Section include the development of standards of sanitation; the review and approval of plans related to potable water and wash water systems, food handling and storage facilities, plumbing, swimming pools, general sanitation, ratproofing, and certain aspects of heating, lighting, and ventilation; consulting service to Federal agencies, naval architects, shipbuilders, joiner contractors, equipment manufacturers, and others; research; and advisory assistance to district offices concerned with shipbuilding.

Copies of Proposed Vessel Sanitation Specifications dated September 1, 1945, and prepared to replace the Vessel Sanitation Manual issued July 1944, were distributed to the United States Maritime Commission, United States Coast Guard, District offices, and associations representing naval architects, shipbuilders, vessel operators, and certain other vessel interests. The standards were prepared in the form of specifications at the joint suggestion of the Maritime Commission and certain vessel interests. They were issued only for study, trial application, and comment. During the latter part of the fiscal year, conferences were held at Washington with representatives of the vessel industry to discuss proposed changes in the specifications and the proposed interstate quarantine regulations under Public Law 410. At the end of the fiscal year, the regulations and the specifications had been revised in accordance with these discussions and were subject to official review before being reproduced for resubmission to the conferees.

The work of reviewing plans increased after VJ-day despite the marked reduction in the construction of vessels under the war emergency vessel building program. This was due to the development of plans for vessels under the postwar program, a normal rate of plan preparation, the extension of the review to additional aspects of sanitation, and more widespread awareness of the service offered and the advantages of plan approval. A program was inaugurated of periodically visiting the offices of naval architects to guide the delineation of plans rather than awaiting the submittal of plans for review. This service has been received enthusiastically.

During the year the review of plans for 15 types of new vessels and 6 conversions was completed. On June 30, 1946, 36 plans were under review—25 for new vessels, and 11 for conversion and reconversion from war to commercial service.

Lloyd Brasileiro, the shipbuilding agency of the Brazilian Government, specified that a series of ships, designed in New York and being built in the United States and Canada, should comply with all of the requirements of the Public Health Service.

Some manufacturers of equipment frequently installed on vessels were contacted to discuss eliminating, at the source, sanitary defects observed in their equipment.

A study of the bacteriological efficiency of a low-pressure double effect distilling plant was conducted in cooperation with the United States Maritime Commission, in view of the trend towards the use of such plants for the production of potable water on sea-going vessels. The study showed that when the salinity in the distillate from such plants is higher than ¼ grain per gallon, coliform and other bacteria may be present. This study revealed for the first time the public-health importance of this limitation and need for dependable controls.

By invitation these findings were presented at the annual meeting of the Society of Naval Architects and Marine Engineers at New York, November 15, as a discussion of a paper on the subject of Economics of Low-Pressure Distilling Plants.

At the request of the Commandant of the United States Coast Guard, the Surgeon General nominated two sanitary engineers as members of the Committee on Structural Standards to assist in formulating proposals relative to ratproofing for adoption at the forthcoming International Conference for the Revision of the 1929 Convention on Safety of Life at Sea.

Vessel Sanitation Section

Following the acceptance of a joint agreement covering vessel sanitation by the War Shipping Administration May 24, 1945, steps were taken to initiate schools in New York City to indoctrinate the officers of the United States Maritime Service to be assigned by the War Shipping Administration to work on this program.

During the period June 18 to October 26, 4 schedules, each 24 days long, were conducted. Fifty men enrolled, 47 completed the course, and 30 were assigned to duty in district offices to work under the immediate supervision of 4 district office engineers trained in vessel sanitation.

During that portion of the year the program was in operation, 2,563 vessel inspections were made. Only 369 of these inspections were made on vessels boarded for inspection at a prior date. These inspections revealed 42,537 defects or an average of 16.6 per inspected vessel. Fifty-eight defects was the maximum number found on any one vessel. The minimum number was zero. Through action initiated by the vessel inspectors, 12,268 defects, 28.8 percent of those found during inspection, were corrected.

Water and Sanitation Investigations Station

The research program of the station located at Cincinnati, Ohio, has been pointed toward resumption of fundamental work in the traditional fields of water and liquid wastes sanitation. All war-connected activities were terminated by the end of the fiscal year.

The major project in water sanitation was completion and publication, in Public Health Reports, of the comprehensive study of the bactericidal efficiency of chlorine and chloramine for bacteria of the coliform and enteric pathogen groups. The other principal activity of the bacteriological laboratory has been a study of the bactericidal efficiency of a number of cationic compounds proposed for use in the cold-sterilization process for eating and drinking utensils.

One mobile trailer laboratory assigned to the station conducted studies of the efficiencies of five small sewage plants. Progress reports on these studies were prepared.

In connection with the study of chemical characteristics of commercial detergents, two papers were prepared and published on the sequestration of calcium and magnesium in alkaline detergents and on a washing performance test for rating dishwashing detergents.

A special effort was directed toward the biochemical oxygen demand reaction of sewage dilutions. Results of this study contradicted the generally accepted concept of the constancy of the reaction velocity constant (K). It was concluded that the reaction velocity varies widely with the dilution, primarily because of variation in the start of nitrification, a factor which is frequently undetectable by plotting.

In connection with the program of State supervision of laboratories examining milk and water samples used on interstate carriers, surveys were made of 29 State and local laboratories performing milk analyses, and 39 making water analyses. Laboratory services in the Chicago-Cook County area were evaluated at the request of the Director of the Chicago-Cook County Health Survey.

Biological studies were conducted on the effects of mud in water on the toxicity of DDT to aquatic life; toxicity of commercial algacides to protozoa; comparative toxicity of chlorine and chloramines to protozoa common to water supplies; biological forms of life occurring in a high rate trickling filter under various methods of operation, and the effectiveness of certain weedicides and their effect on fish life.

The initial directory of the country's untreated water supplies, as of 1943, was completed. An analysis of assembled data on sewage treatment in communities of less than 5,000 people, involving 70 percent of the country's sewage treatment plants, has been undertaken.

Cooperative investigations were completed for and with the Corps of Engineers, United States Army, on the Raritan River of New Jersey, Roanoke River of Virginia, Smith River of Virginia and North Carolina, and the Big Sandy River of West Virginia and Kentucky. Twenty-six requests involving 94 reservoirs were submitted during the year to the Service by the Corps of Engineers, for review in connection with malaria hazards.

Advisory assistance was furnished to three States on stream pollution studies.

In connection with a proposed investigation of international waters in the St. Clair-Detroit River area, preliminary plans have been completed for inauguration of field activities and a member of the station staff designated to serve as one of an advisory group to the International Joint Commission on this project.

Sanitary Engineering in Other Agencies

The policy of assigning engineer officers of the Service to other Federal agencies to assist in environmental sanitation activities and to exercise inspectional and consultative service was continued.

Division personnel served on the National Research Council and the Office of Scientific Research and Development committees. Two staff members were designated engineering representatives to the American Red Cross to continue development of coordination between that agency and the Sanitary Engineering Division.

On June 30, 1946, there were 20 sanitary engineers and sanitarians serving with the United Nations Relief and Rehabilitation Administration. Assignments were made to Germany, China, Italy, Yugoslavia, Poland, Albania, Ethiopia, Greece, and the Middle East. Detailed work included improvement of existing municipal water supplies, malaria control, and the maintenance of working sanitation programs. Technical direction was furnished to training programs for sanitation personnel. The expediting of procurement and distribution of sanitation equipment and supplies together with direction in the use of these materials was a major accomplishment.

Ten engineer officers and one sanitarian were continued on detail to the central and regional offices of the Federal Public Housing Authority. These men have dealt with sanitation problems involved in the development and operation of low-income public housing, public war housing, and the Veterans Re-use housing projects.

In order to give technical assistance in sanitation, safety, and housing problems involved in the operation of camps for agricultural workers, seven engineer officers were detailed to the Labor Branch, Production and Marketing Administration, United States Department of Agriculture.

Engineer officers were also detailed to the Federal Housing Administration; the Pan American Sanitary Bureau, where they played an important part in the First Inter-American Regional Sanitary Engineering Conference held in Rio de Janeiro, Brazil, June 10–20, 1946; the Department of Justice Bureau of Prisons, during which assignment a sanitation manual for prisons was written; the Sanitary Corps, the Air Corps, and the Engineering Corps of the Army; the State Department; the War Shipping Administration; the Office of Scientific Research and Development; the Procurement and Assignment Service of the War Manpower Commission; and the Liberian Mission. In addition, consultative services were rendered to the International Joint Commission, National Research Council, and the Institute of Inter-American Affairs.

The engineers of the district offices continued to cooperate with the National Parks Service, the Office of Indian Affairs, the Coast Guard, the Forest Service, the Bureau of Entomology and Plant Quarantine, the Bureau of Reclamation, and the Immigration and Naturalization Service.

Division of Nursing

On February 1, 1946, the Division of Nursing was established within the Office of the Surgeon General by authority of the Federal Security Administrator. The Division has general supervision over all nursing activities carried on by the United States Public Health Service, as well as professional supervision over all nursing personnel, including nurses assigned for duty to other governmental agencies. The administration of the Nurse Training Program (Public Law 74, passed by the Seventy-eighth Congress on June 15, 1943, amended) is also the responsibility of the new Division.

Office of Hospital Nursing Services

A description of activities of the Office of Hospital Nursing Services is included under the report of the Bureau of Medical Services.

Office of Public Health Nursing

A description of activities of the Office of Public Health Nursing is included under the report of the Bureau of State Services.

Office of Nurse Education

A total of $44,400,000 was appropriated for the Federal Nurse Training Program for the fiscal year ending June 30, 1946. Of this amount, $43,788,678 was appropriated for basic and postgraduate programs, and $611,322 for administrative expenses.

The United States Cadet Nurse Corps

In January 1945, the recruitment goal for the United States Cadet Nurse Corps for the fiscal year ending June 30, 1946, was set at 60,000. After VE-day this figure was reduced to 50,000, with 40,000 of these students to be recruited for summer and fall classes. When recruitment was canceled at the time of the Japanese surrender, 28,220 student nurses had been enrolled (as of August 20) for admission to schools of nursing and the Cadet Nurse Corps, thus bringing the total number of participants in the Corps program to 177,004.

At the request of the President and Congress, October 15, 1945 was set as the final date for new admissions to the Corps, with students limited to those enrolled by August 20. All district recruitment activities were discontinued immediately and contracts with the American Hospital Association and the National Nursing Council for War Service were terminated. The contract held for outdoor uniforms was canceled, and students admitted to schools of nursing after July 1, 1945 were not provided with outdoor uniforms. Instead, sleeve and lapel insignia were issued to students admitted after that date to identify them as members of the Corps.

Although no new admissions to the Corps were accepted after October 15, students enrolled prior to that date, in accordance with provisions of Public Law 74, will continue to receive Federal aid to completion of their nurse training for a period not to exceed 30 months' accelerated program. Readmission and transfer of students were also limited on October 15.

Advanced to senior cadet status during the year 1945–46 were 28,310 students. The total number of senior cadets produced to June 30, 1946, was 58,752. Of this number, 8,321, or a little more than 14 percent, were assigned to the Federal services, the others serving their senior cadet periods in civilian hospitals and health agencies—most of them in their home hospitals. The senior cadet plan of assignment continued to function satisfactorily, affording students an opportunity for practical experience. At the same time, they helped to alleviate the acute nursing shortages, since hospitals throughout the country continued to experience a great need for additional nursing personnel. With the discontinuance of the Corps recruitment program, schools of nursing faced a serious lack of new students. Hospitals depended heavily on their large Corps enrollments, as well as on the senior cadets serving in their institutions.

From the inception of the Corps program to the close of the fiscal year 1946, 38,640 cadet nurses were graduated.

The Division of Nursing—Office of Nurse Education—continued to assist the Veterans' Administration in channeling senior cadets to that agency's hospitals. In May 1946 the medical director of the Veterans' Administration issued a call for 600 senior cadets to supplement the nursing staffs of veterans' hospitals. In this project the division cooperated with directors of schools of nursing and boards of nurse examiners in the various States.

An analysis of the cost of nursing education, begun in 1944, was completed under the direction of Dr. Louis Block, who was loaned to the Division to conduct the study. Articles on procedures of cost analyses were prepared for professional journals and a manual of methods used is now being compiled.

The Postgraduate Program

The close of the fiscal year 1946 marked the end of advanced training offered to graduate nurses under provisions of the Nurse Training Act. During the year just passed, 3,132 graduate nurses undertook postgraduate work in 84 institutions. The postgraduate courses offered during the year, and the numbers of students and institutions participating, are listed in table 1.

During the 3-year period ending June 30, 1946, 19,023 students took advantage of postgraduate courses offered in 147 institutions.

TABLE 1

Programs	Number of institutions	Number of students
Nurse education	26	979
Public health nursing	32	1, 138
Supplemental clinical courses	3	58
Anesthesia	6	118
Psychiatry	4	48
Midwifery	4	22
Part-time study	5	47
Intensive on-the-job courses	16	722

Personnel and Departmental Organization

The staff of nurse education consultants was reduced from 22 at the start of the fiscal year to 15 at its close. Nine of the consultants on the professional staff, stationed in United States Public Health Service districts throughout the country, had, up to the close of the past fiscal year, visited each school in their districts at least once, and a number of return visits had been made.

Preparation of school budgets for the operation of the Cadet Nurse Corps training program in the fiscal year 1946–47 was accomplished by four field auditors and other members of the staff of the management section of the division. The field auditors assigned to the district offices also visited schools of nursing for the purpose of auditing

Federal fund accounts, making 82 one-year audits and 262 two-year audits of nursing school records pertaining to grants for the Corps program.

In September 1945, the Nurse Education Advisory Committee met with the Surgeon General, the director of the Cadet Nurse Corps program, and the nurse consultants. Plans were discussed and recommendations made for continuation of the program to its orderly termination, as approved by Congress and the President.

Division of Public Health Methods

The Division of Public Health Methods is responsible for appraising national health problems, developing methods to meet the problems, and transmitting public health information to the public and specialized groups.

To carry out these functions, the Division gathers and analyzes data on the nature and amount of sickness among the population, and on services, facilities, and professional personnel available to meet health needs. It conducts statistical studies on the maintenance and improvement of health, including the evaluation of methods for financing and administering organized health and medical services and for training personnel. It makes mass appraisals of diagnostic and therapeutic techniques. In addition, it determines the effectiveness of health education procedures, and disseminates information on public health through various media.

Studies on Health and Sickness

Current morbidity reports.—Four important communicable diseases—influenza, diphtheria, smallpox, and poliomyelitis—showed unusual incidence during 1945. The reported incidence of influenza remained high for the third consecutive year. The outbreak which began in November 1945 and continued through February 1946 appeared to be less severe than that of 2 years ago. Between mid-November and mid-February, State health officers reported a total of 486,345 cases, as compared with 620,052 for the same period in 1943–44.

Diphtheria, one of the leading epidemic diseases on the European continent in 1944, showed some rise in this country during 1945. By the end of the year, 18,606 cases had reported, as compared with 14,122 in 1944. Preliminary reports also indicate an accompanying increase in diphtheria mortality. Many cities reported first cases of and deaths from diphtheria in several years.

Outbreaks of smallpox, presumably introduced from the Orient, occurred in 1945–46 in the San Francisco and Seattle areas. The first case appeared in San Francisco on December 29 and in Seattle on

February 5. The outbreaks resulted in 13 cases and no deaths in California; 68 cases and 20 deaths in Washington. The last case in the San Francisco area appeared on March 27; in Seattle, on May 24.

The incidence of poliomyelitis reached epidemic proportions in 1945 for the third consecutive year. A total of 13,145 cases was reported during the year, as compared with 19,029 in 1944 and 12,449 in 1943. Reports for the first 6 months of 1946 indicated another year of unusual incidence of poliomyelitis.

The provisional death rate for all causes in 1945 was 10.6 per 1,000 population (exclusive of the armed forces overseas), the same as that for 1944. During the first 5 months of 1946, the provisional rate was 10.9, as compared with 10.8 for the same period in 1945.

Reports of malaria cases by origin of infection within and outside of the United States, requested of State health officers during the year, showed a continuing decline in indigenous cases in a majority of the States. This decline has been observed since 1935.

By the end of the year, scattered information on the prevalence of communicable diseases outside continental United States was being received from a number of countries which had been forced to abandon reporting during the war period. Although this information is still fragmentary, it is expected that foreign reporting will reach the prewar level during the next fiscal year.

Morbidity reporting studies.—The comprehensive studies of the reporting of important public health diseases, commenced in 1945, was continued. Field work was completed in 10 counties. Preliminary analysis of the data has indicated that use of collateral sources of morbidity data available in the community, including school records, hospital records, and death certificates, can greatly improve the level of reporting.

On the basis of the findings, recommendations have been made for the discontinuance of reporting of certain diseases of limited public health importance. The results of the studies will be published in the near future.

Study of State reporting systems.—Preliminary to studies of morbidity reporting in specific local areas, a study was made of the organization of State reporting systems and the procedures followed in the collection, filing and tabulation of the morbidity data furnished by State health departments to the Public Health Service. It was found that variations which affect the completeness and comparability of the statistics exist among the States, both in the diseases required to be reported and in the procedures followed.

Classification of causes of illness and death for statistical purposes.—Development of an international code for the recording of causes of morbidity and mortality has been undertaken by a committee of medical statisticians of the United States, Canada, and Great Britain. The Health Section of the League of Nations also is represented. A preliminary draft is being prepared and will be presented at the next conference. The code is intended as a substitute for the International List of Causes of Death and will serve as well as an international list for coding causes of morbidity.

Studies of acute infectious diseases.—Diptheria immunizations, in terms of diptheria case rates and the proportions of the child population immunized, were studied in 28 large cities during the year. Although there has been an increase in diptheria in the last few years, there is indication that active immunization of a considerable percentage of the child population is effective in reducing diptheria case rates.

A study of the incidence of poliomyelitis over the past 15 years indicated that, in general, epidemics of this disease run out within a 2-year period; that a period of three consecutive epidemic years is quite unusual. The 1946 epidemic, which is becoming rather widespread, represents the fourth consecutive year with high poliomyelitis case rates.

Morbidity among children in wartime.—Statistics on absenteeism among school children in Hagerstown, Md., during the war years were summarized and reported. No increase in absenteeism among school children was noted during the war period. While outbreaks of influenza, measles, mumps, and chickenpox occurred from 1941 to 1945 with high incidence rates, the diseases were mild in form. A comparison with data for 1923–25 shows that among school children of all age groups there has been considerable increase in absenteeism due to sickness. At the same time, a marked reduction has taken place in days lost for reasons other than illness.

Analysis of the efficacy of pneumonia antigen.—Assistance was given to the Division of Infectious Diseases in determining the effects of pneumonia antigen on the incidence of pneumonia in the population from 1939 to 1945. It was found that during that period approximately 25,000 residents of Washington County, Md., received 44,000 injections of pneumonia antigen. Through the utilization of all records at the Hagerstown office it was possible to determine with some accuracy the population exposed to risk and the incidence of pneumonia in that part of the population inoculated as well as in that portion which did not receive antigen.

The effects of antigen on the frequency of upper respiratory diseases among school children also were studied. A report on these findings will be published shortly.

Continuous caudal analgesia in childbirth.—In cooperation with the Bureau of Medical Services, 2,500 deliveries in which continuous caudal analgesia was used were studied at a Philadelphia hospital.

One thousand deliveries by usual methods and anesthetics were used as the controls. A detailed analysis indicated that the two groups of women came to delivery in approximately the same state of health, but that morbidity of the mothers and stillbirth and neonatal mortality of the infants were lower when women received caudal analgesia. While infant mortality has decreased rapidly in the past generation, mortality in the first week of life has decreased very little. Investigation of the efficacy of continuous caudal analgesia in saving lives during this first critical week, therefore, are particularly important.

Dental care studies.—Statistical studies were begun to obtain data on the present experience of clinics in providing care for children. The information will be used to deal with the problems of dental care administration. Tabulation of a sample of case histories was completed in two philanthropically sponsored clinics located in New York and Philadelphia, and a time study of the more frequent dental treatments was added to the Philadelphia study. Preliminary analyses indicated that private clinics encounter a high volume of dental need in children, but also have a high rate of patient loss.

Examination of children 6 months and a year after all accumulated defects had presumably been cared for showed an increment in needed services far in excess of that gauged by general surveys which count the number of teeth attacked by decay. On the other hand, the time study showed the average number of minutes per extraction or filling to be appreciably lower than currently employed estimates. This may be due to some extent to the employment of hygienists and the establishment of definite clinic routines.

Epidemiological studies of dental disease.—Through the cooperation of the War Relocation Authority, more than 2,000 persons of Japanese ancestry were examined during the year to determine the family factors involved in the incidence of dental disease.

Cooperative studies on dental epidemiological problems also were undertaken with the District of Columbia Health Department and with the New Jersey State Health Department.

Measurement of muscle strength.—With the aid of a grant of $25,000 from the National Foundation for Infantile Paralysis, work was continued on the development of an instrument known as the electronic myodynometer for testing muscle strength. Demonstrations to determine the utility of the instrument have been carried on. At the close of the year, preparations were under way for initiating clinical pilot studies at the Massachusetts General Hospital at Boston and Children's Hospital at San Francisco. To carry out these studies, physical therapy technicians are being taught the new procedures developed during the year, for use of the electronic myodynometer.

Study of medical care in hospitals and out-patient clinics.—Methods and procedures were developed for the smooth and rapid collection of data on sickness loads in hospitals and out-patient clinics and for the evaluation of the kinds and amounts of treatment received by patients in those institutions. The study was conducted in cooperation with the Medical Division of the Department of Public Welfare, Baltimore, Md.

Health Services

Voluntary insurance plans.—The Nation-wide survey of voluntary nonprofit hospital insurance plans, their affiliated medical service plans, and medical plans sponsored by medical societies has been brought close to completion. The survey covered 29 hospital plans, 17 medical plans, and 6 commercial companies writing hospital and surgical insurance. The report on the survey makes available detailed information on these plans, appraises their advantages and limitations in terms of bringing adequate health care to the whole population.

Group practice studies.—A study of medical group practice was initiated in the fall of 1945 to obtain necessary information for determining the relative efficiency of group practice and individual practice. The study will cover groups of various sizes, types, and forms of organization in all parts of the country. By the end of the fiscal year, 20 groups had been visited and 3 of these had been studied intensively. It is expected that an additional 20 groups will be studied in the coming year.

Aside from detailed studies of individual groups, it is hoped that some evaluation of the scope and importance of group practice can be made. A listing of medical groups has been undertaken, and it is planned to mail questionnaires to all known groups in the near future.

Child health services.—Continued cooperation has been given by the United States Public Health Service and the Children's Bureau of the Department of Labor in the Nation-wide study of child health services which is being conducted by the American Academy of Pediatrics. Medical and statistical personnel and equipment have been provided by the Service at the request of the Academy.

The pilot study, begun in North Carolina in September 1945, is nearing conclusion. State study programs, patterned after the North Carolina project, have been organized and are now actively operating in 38 States. Data collection is under way in many of the States, and preliminary arrangements for an early start have been made in practically all States and in the Territory of Hawaii.

Survey of full-time public health positions in local health departments.—Data obtained in a survey, sponsored by the Surgeon General's Committee on Postwar Training of Public Health Personnel, were used to study the pattern of local health department organization.

The relation between the size of staff and the population served by a health department also was investigated. It was found that about half of the full-time professional and technical positions in local health departments are for graduate nurses. The majority of small health departments employ only a health officer, a sanitation worker, and one or more graduate nurses.

Training of public health personnel.—The Committee on Postwar Training of Public Health Personnel, which was established by the Surgeon General in 1944, continued to assist in the development of plans for adapting present training facilities to meet personnel requirements. The Committee found that, although the return of people from the military services has made more personnel available, somewhat acute shortages remain in most State and local health departments. To help recruit qualified personnel, particularly physicians and engineers, fellowships in graduate public health training were sought from and made available by the Rockefeller Foundation and the Commonwealth Fund.

In March 1946, a grant of $228,400 was made by the National Foundation for Infantile Paralysis for the graduate public health training of physicians and engineers. This grant is extended over a 2-year period. By the end of the fiscal year, fellowships in schools of public health and schools of public health engineering had been granted to 60 students for the 1946–47 school year. Three-fifths of this group are engineers.

The capacity of existing accredited schools of public health was found fairly adequate to absorb the present training load. Estimates of needs indicate that no more than three additional schools would be required in the immediate future.

Salary ranges of professional personnel also were studied during the year. There was indication in many areas that an adequate supply of professionally trained personnel may not be attained until salaries are made more attractive.

Study of dental personnel.—Analysis of a questionnaire on the postwar plans of Army and Navy dental officers was completed, and the results published in the Journal of the American Dental Association. This study was a joint project of the Public Health Service and the War Service and Postwar Planning Committees of the American Dental Association. It was found that most officers plan to enter private practice; that the trend in the location of dentists is toward States having more favorable dentist-population ratios. Only a small percentage expressed interest in children's dentistry or in public health dentistry.

Hospital facilities survey.—In cooperation with the States Relations Division, the Division provided advisory technical services to the Commission on Hospital Care in making and analyzing surveys of hospital facilities and services. The commission, which is sponsored by the American Hospital Association, has been established as a nongovernmental body to assist States in drawing plans for necessary hospital and related facilities and services. Study groups have been set up in the States, and by the end of the fiscal year most States had undertaken surveys. For a number of States, the coding and tabulating of data collected had been completed by the Commission.

Office of Health Education and Training

The demonstrations of effective local health education programs which were initiated earlier were turned over to State and local health departments for continuation on a permanent basis. In every State where such demonstrations were started, the programs are going forward. In addition, many other local departments are employing health educators and initiating programs patterned after those in the demonstration areas. Personnel who formerly conducted demonstrations are now consulting and advising States and local communities on the development of health education programs. During the year intensive consultation service had been given in 24 States.

An increase in the number of local health departments desiring to employ qualified health educators has necessitated continued emphasis on the training of personnel. State health departments and voluntary health organizations have been encouraged to provide stipends for training in addition to the fellowships made available through a grant from the National Foundation for Infantile Paralysis administered by the Public Health Service. Out of a total of 108 health educators who completed training during the year, 21 studied on fellowships from this National Foundation.

Instructional assistance has been given three of the schools of public health particularly on those newer techniques of public health education developed in the demonstrations conducted during previous years.

Negro health work.—The objective of the 1946 Negro Health Week was "A Healthy Home in a Healthy Community." Health Week programs and materials were requested by approximately 12,500 communities in 45 States. It is estimated that an audience totaling 3,500,000 persons attended lectures, health sermons, motion pictures, exhibits, demonstrations, and clinics featured during the week. A large number of these also engaged in home and neighborhood clean-up projects.

The circulation of the National Negro Health News was maintained at 4,000 copies for selected mailing lists. Field service was given in 15 States and 27 localities. Liaison activities with Federal and State agencies included consultation and cooperative services in matters particularly affecting the Negro population.

Health Information

The Office of Health Information was established in August 1945, to centralize and coordinate the informational activities of the Public Health Service. Its functions may be summarized in three broad categories. First, it assists the operating divisions of the Service in planning and carrying out the informational phases of their public health programs. Secondly, it serves as the public information office for the Service as a whole, answering inquiries from the general public and serving the needs of the press, radio, and outside writers in general. Thirdly, it provides information services within the Public Health Service and to public health personnel throughout the Nation.

Public health programs.—During the fiscal year 1946, information services were rendered in connection with all of the operating programs of the Service. Liaison officers were assigned to eight divisions, and close working relationships were maintained with the others, in order to assure the integration of the information programs with the other phases of public health activities. Every medium of professional and public information was utilized in one or another of the special campaigns and general programs carried on during the year. Some of the highlights of these activities are given in the following paragraphs.

In the field of tuberculosis, the information program was centered on the miniature film mass X-ray program sponsored by the Tuberculosis Control Division. This Office cooperated with the American Hospital Association, the National Tuberculosis Association, and the American Trudeau Society in the preparation of a kit of informational materials designed to stimulate the development of routine admission chest X-ray programs in general hospitals. Two sound motion pictures on the administration of these programs have been issued, as well as sound film strips for training in the operation of mobile X-ray units. A three-dimensional exhibit on this subject has been prepared and shown widely at conventions, and considerable public information has been carried on in support of the mass radiography program. A further service to the Division was the preparation of a monthly news letter for Division personnel.

In connection with the venereal disease control program, the motion picture, A Message To Women, produced in cooperation with the Tennessee Department of Public Health, is receiving wide distribution through State and city health departments. A folder with the same title was produced to accompany the film. Four of the most widely used venereal disease pamphlets have been revised in the light of new developments in treatment, and a new one has been issued as a part of the Workers' Health Series. Informational materials and services were furnished in support of the combined tuberculosis and venereal disease mass survey conducted in Savannah, Ga. The Office also assisted in the planning of the joint campaign for community organization conducted by the American Social Hygiene Association and the Public Health Service.

Assistance was given to the Office of Malaria Control in War Areas in the production of In Self Defense, a sound film strip in color, and three color-film strips on schistosomiasis. Work has begun on another film strip and on a series of training films on the use of DDT in malaria control. The research program on antimalarial drugs was documented in an extensive series of photographs which were released to the press with background material. Rocky Mountain spotted fever, rabies, and Hansen's disease (leprosy) were the subjects of other informational materials prepared during the year.

Nurse recruitment for civilian hospitals, still faced with acute personnel shortages, was the objective of a Help for Hospitals campaign in which this Office cooperated with a group of official and voluntary agencies. A kit of materials was produced by the Office of War Information for use in local communities, including advertising, press releases, radio scripts, and other items. For Know Your Public Health Nurse Week, sponsored jointly by the National Organization for Public Health Nursing and the Public Health Service, a public information program was arranged, including radio and newspaper material. Two new pamphlets were prepared, primarily for recruitment purposes: Set Your Cap, for the marine hospitals, and The Public Health Nurse and You.

The monthly Industrial Hygiene News Letter, which has achieved a wide circulation among personnel in this field, was first issued as a printed publication during the fiscal year. Four graphic exhibitions were prepared, including one on health services for small industrial plants, with a supplementary pamphlet, which was shown at the convention of five national societies. Capital Story, a motion picture dramatizing the detective story aspect of industrial hygiene work, begun by OWI, was completed by this office during the year. A pamphlet, At Your Service, was prepared to promote the development of industrial hygiene services in industry.

This Office cooperated with the Sanitary Engineering Division and the Office of Education, Federal Security Agency, in the production of three motion pictures on the sanitary operation of small milk plants. A manual was also prepared for the personnel who will use these films in the field. Guide to Safe Food Service, a manual for restaurant workers, is in press; other materials on which assistance was given dealt with shellfish sanitation, stream pollution, and food sanitation. The motion pictures Clean Waters, and Running Water on the Farm, produced by the General Electric Co. were reviewed prior to their release.

Breast Cancer, the second booklet in the Cancer Control Series, was issued during the year. The general public information program featured a series of press releases on cancer research issued during Cancer Control Month. Work was begun on a series of manuals to interpret the revised foreign quarantine regulations as they apply in practice to the various personnel groups involved, as well as to passengers.

In addition to the nurse recruitment activities mentioned above, releases were issued to newspapers and professional journals to aid in the recruitment of commissioned officers. Other releases and informational materials were prepared for recruitment of medical and engineering personnel and candidates for training in health education, utilizing funds made available for this purpose by the National Foundation for Infantile Paralysis.

Public information.—During the year, this Office received and answered more than 34,000 requests for health information and publications from individuals, business firms, civic, fraternal, and voluntary organizations, physicians, and Federal, State, and local government agencies. Materials furnished included technical reports, popular pamphlets and posters, films and transcriptions, and periodicals, as well as individually prepared replies. Twelve new health leaflets were prepared on common subjects of inquiry, and eight were revised and reissued.

Service to the press has been a major activity of this Office. Inquiries are received daily for health statistics and for official statements and background material on health subjects in the news. Requests range from telephone queries to the solicitation of finished feature stories, radio scripts, and articles for professional and popular journals. Spot news items and features are prepared for general release, and fact sheets are issued on subjects of special interest.

Editorial assistance is also given to Public Health Service personnel in the editing of manuscripts for publication and in the preparation of reports and articles.

Information to Public Health personnel.—This Office edits and publishes the weekly Public Health Reports, which contains current reports of the incidence of disease, research reports, technical papers, and articles of interest to personnel in all phases of public health work. It also assists the various divisions with their intraservice information programs, and has surveyed the needs of the Service in this respect with a view to improving the exchange of information, particularly between headquarters and field personnel.

Office of International Health Relations

This Office was established to provide for the centralization of the growing responsibilities of the Service with respect to matters of international health. Limitations of personnel have restricted its scope, but the appropriation of $34,750 for the coming fiscal year will permit augmentation of the staff.

In addition to the functions detailed below, plans for the next fiscal year include the establishment of a Research and Information Section. This Section will collect and assemble badly needed data on foreign medical and public health conditions and on foreign educational and research institutions in the health field. It is also hoped that it will be possible to devote more time to the reception and assistance of foreign physicians and public health workers, of whom more than 100 were received by this office and other divisions during the past year.

International Health Organization

In cooperation with the Health Branch, Division of International Labor, Social and Health Affairs of the State Department, the staff of this Office drafted a constitution for a new international health organization. The proposed constitution was considered by a nationally representative Advisory Health Group called by the State Department for meetings in Washington on October 11 and 12, with the Surgeon General presiding. Unanimity on the purposes and the general principles of the organization was apparent, and many useful suggestions regarding details were made.

The Economic and Social Council of the United Nations on February 15, 1946, called a technical preparatory committee on health to meet in Paris on March 18, 1946. The meeting, which lasted until April 15, was attended by the Surgeon General as one of the experts, with Dr. James A. Doull as his alternate. Proposals for the constitution of the World Health Organization and annotated agenda for the international health conference were prepared, and eight general resolutions were adopted.

The International Health Conference of the United Nations was convened in New York City on June 19, 1946. The Surgeon General, attending as chairman of the United States delegation, was elected president of the conference. The Chief and Assistant Chief of this Office were among his advisers.

At the final session of the conference on July 22, the constitution of the World Health Organization was adopted. China and the United Kingdom signed without reservations, and the remaining 49 United Nations, as well as 10 nonmembers represented, signed subject to ratification according to their constitutional requirements. The constitution will enter into force when it has been finally accepted by 26 of the United Nations. An interim commission was created pending the formal establishment of the World Health Organization and the United States was elected to membership.

Liberian Mission

The administration of the Liberian Mission was taken over from the States Relations Division during the latter part of the fiscal year.

The Mission was inspected by the Assistant Chief of the Office in May of this year. It was found that valuable work was being done. Encouraging cooperation had been obtained from the Liberian Government, including considerable financial support. The main functions of the Mission include: (1) Environmental sanitation, especially malaria control work around United States military and other installations; (2) public health education of the officials and population of the country; (3) education and training of nurses and other technical medical personnel; (4) control of health emergencies such as the epidemic of smallpox that occurred during March and April 1946; and (5) public health surveys. The greatest limiting factor in the work is the difficulty of transportation, which makes access to hinterland stations extremely slow.

Interdepartmental Committee on Cultural and Scientific Cooperation

The Public Health Service is represented through this office on the Interdepartmental Committee on Cultural and Scientific Cooperation. A budget of $195,750 has been appropriated for fellowships and assignment of health personnel to other American republics. These funds will be expended through this office with the cooperation of the Pan-American Sanitary Bureau.

Liaison

Liaison has been maintained with the Department of State through the health branch of the Division of International Labor, Social and Health Affairs, and directly with the Division of International Exchange of Persons, the United Nations Relief and Rehabilitation Administration, the Pan-American Sanitary Bureau, the Institute of Inter-American Affairs, the Caribbean Commission, and representatives of a number of embassies and legations of foreign countries in Washington. Informal liaison also has been maintained with various private foundations and organizations interested in international health affairs.

NATIONAL INSTITUTE OF HEALTH

The National Institute of Health, as the research branch of the United States Public Health Service, is responsible for the development of the research program of the Service. The activities of the Institute are divided among nine coordinate units: The National Cancer Institute, the Division of Infectious Diseases, the Division of Physiology, Biologics Control Laboratory, Chemistry Laboratory, Industrial Hygiene Research Laboratory, Pathology Laboratory, Zoology Laboratory, and the Research-Grants Office. The last-named unit was created to administer the research grant-in-aid program authorized under Public Law 410. With the end of the war and the discontinuance of certain wartime agencies, the duty of implementing the research grant-in-aid program authorized under Public Health Service Act of 1944, devolved upon the National Institute of Health, the Surgeon General establishing the Research-Grants Office in the National Institute of Health, January 1, 1946.

The library added 1,681 volumes to the collection, bringing the total number of volumes to 48,568; 844 periodicals were recived, of which 382 were paid subscriptions and 462 were obtained by exchange or as gifts. The total circulation amounted to 31,810 books and periodicals. Reading-room attendance was approximately 6,000, and over 3,000 reference questions were answered. Reference work reflected a definite postwar interest in projected plans for hospital surveys and construction, expanding medical care activities, water-pollution control, and all aspects of scientific research. Great interest was also shown in new therapeutic and surgical techniques developed during the war.

Four exhibits were prepared for the Division of Physiology. They were: Changes in kidney function with aging; microbiological assay for tryptophane; fluorine and dental health, which was presented at the five-State dental meeting held in Washington; vivax malaria, experimental human malaria, was presented at the 1945 meeting of the Society of Tropical Medicine. Plates prepared in the National Institute of Health for the film on schistosomiasis were used by Malaria Control in War Areas in an exhibit of transparencies at the meeting of the Society of Tropical Medicine and received honorable mention.

Reports of studies that were restricted during the war period are being released. These are included in the total number approved:

For Public Health reports, 40 papers; for outside publication, 212; for other Service publications, 22. Three manuscripts were approved for publication as National Institute of Health Bulletins, and are now in press. Three Public Health Bulletins were distributed; one is in press; two manuscripts were reviewed and approved for later publication.

Translating service, which was originally limited to the scientific personnel of the Institute, was made available to the personnel of the Bureau of State Services as the result of a cooperative arrangement made during the past year. In addition, special assignments originating outside the Public Health Service were handled. A total of 3,440 pages of translations was prepared, 43 percent being translated from the German, 16 percent from the Russian, and the remainder from other languages.

National Cancer Institute

The activities of the National Cancer Institute include cancer research, grants to other institutions to support cancer research, the provision of training for physicians in the diagnosis and treatment of cancer, loans of radium to hospitals, cancer education activities, cooperation in the work of the tumor clinic at the United States Marine Hospital in Baltimore, and informational and advisory services to individuals and agencies working in the field of cancer.

National Advisory Cancer Council

The National Advisory Cancer Council, composed of six members and the Surgeon General of the Public Health Service as chairman ex officio, is an advisory body on administration of the program of the National Cancer Institute. The Council held three meetings in addition to a joint meeting with the National Advisory Health Council. Committees of the Council have met as needed. A report of cancer facilities and services was prepared by one of the Council's committees and published in the Journal of the National Cancer Institute (vol. 6, No. 5, 1946). The committee on gastric cancer has been very active and a number of gastric cancer research projects have been undertaken at various medical centers as a result of its work.

Grants-in-Aid

The Council reviewed 40 applications for grants-in-aid and recommended 31 for payment. Thirteen of these have been paid and the remainder will be paid in the next fiscal year. Grants paid are as follows: New York University, New York, $12,400; Northwestern University, Chicago, $8,500; University of Minnesota, Minneapolis, $1,450; Washington University, St. Louis, $10,000; University of

Minnesota, Minneapolis, $4,700; Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York, $10,000; Yale University, New Haven, Conn., $5,000; Meharry Medical College, Nashville, Tenn., $1,100; Syracuse University, Syracuse, $5,000; Jeanes Hospital, Fox Chase, Philadelphia, $2,640.94; University of Southern California, Los Angeles, $3,600; Michael Reese Hospital, Chicago, $10,000; Institute for Cancer Research, Lankenau Hospital, Philadelphia, $2,500.

Radium Loans

The 45 loans of radium in effect July 1, 1945, were continued and 2 new loans were made. The hospitals having these loans reported that approximately 1,900 patients had the benefit of treatment with the Government radium.

Training in the Diagnosis and Treatment of Cancer

The demands for medical personnel for military service during the war inevitably reduced the number of physicians who could take advantage of this training. As of July 1, 1945, there were seven traineeships in effect. Two new appointees went on duty on that date and three others at later dates during the year. There were two terminations, leaving 10 on duty as of June 30, 1946. With the termination of hostilities the increase in the demand for training began and 25 new appointments have already been approved of physicians who will go on duty early in the new fiscal year.

Cancer Information and Education Service

The demands for information on the many phases of cancer and for educational materials have increased as the work of the Institute has become better known. These have been met to the extent of the Institute's facilities.

Tumor Clinic, U. S. Marine Hospital, Baltimore, Md.

The work of this clinic is increasing from year to year. To date, 2,817 patients have been admitted. The number of admissions including readmissions during the year under review was 809.

Publications

Volume 6 of the Journal of the National Cancer Institute was issued in six numbers. The staff of the Institute were authors or coauthors of all but three of the papers published in this volume.

Research

The research staff of the National Cancer Institute has been divided into sections with section chairmen. The divisions are biochemistry, biology, biophysics, chemotherapy, cell adaptations, epidemiology, statistics, pathology, and endocrinology. Among the more important and significant research projects and results during the year were the following:

Radiology.—In collaboration with the Metallurgical Laboratory of the University of Chicago, animals were exposed to long-continued gamma irradiation. The hematopoietic system of guinea pigs is highly sensitive to gamma rays while the hematopoietic systems of mice and rabbits are quite insensitive. Long exposure of mice increased the incidence of lung, mammary, and ovarian tumors, and leukemia. Daily exposure to 0.11 r per 8-hour day was found to shorten the life span of mice.

Genetic studies.—A unified program has recently been undertaken to establish better genetic control of all experimental animals used in the National Cancer Institute (mice, rats, and guinea pigs). The purpose is to insure the production of the desired genetic types and to attain the highest degree of genetic uniformity possible. The general aim of the genetic program is to uncover the role of the genes in determining the physiology leading to tumor development. Some success has been achieved toward the identification of the genes involved in lung tumor development in the mouse by showing linkage to known genes. Our investigations have demonstrated that four of the chromosomes can be concerned in the development of induced lung tumors. It is becoming clearer, as genetic studies are pursued, that hereditary constitution is an important factor in the genesis of cancer.

Metabolism of normal and cancer tissue.—Biochemical and metabolic studies are in progress on the mechanism of action of three classes of agents on growth, on respiration, and on survival of tumor tissues, normal tissues, and on selected micro-organisms. In addition, analyses are in progress on the data on the metabolism of the Earle in vitro induced tumors. Results show that cobalt has been found to be a rather specific inhibitor of growth and, secondarily, respiration, and can kill tumor cells and many pathogenic and nonpathogenic bacteria. Biotin has been found to act specifically to accelerate a reduction reaction requiring hydrogen derived from substrates that act through the mediation of coenzyme.

Studies in cell differentiations and adaptations.—For several years, studies of certain single-cell species have been undertaken on the assumption that the carcinogenic process and the process by which cells become adapted to unfavorable environments have features in common. These studies have lead to the following tentative conclusions regarding the mechanism of species and cellular adaptations:

1. The continuous exposure of actively multiplying free-living bacterial species to an unfavorable environment may not be fatal to individual organisms or cultures but in due time the species will die.

2. By discontinuous or alternating exposure, an actively multiplying species can adapt and continue to survive in an environment that is fatal when the exposure is continuous.

3. The ability of an organism to resist an unfavorable environment varies with its age and maturity.

4. Organisms can resist higher intensities of an unfavorable environment during the resting stage than during the actively multiplying stage.

5. The volume of the inoculum employed in transfers is a factor in survival when a species is continuously exposed to an unfavorable environment. Within limits, the larger the inoculum, the longer the time of species survival.

By a continuation of these studies of cellular and species survival, on the one hand, and the mechanism of cellular and species adaptations on the other, it is believed some light will be thrown on the mechanism of carcinogenesis.

Virus studies.—The object of these investigations is to study exhaustively the specific neoplastic disease complex caused by the Rous sarcoma virus. A high degree of purification of the filterable Rous virus-like agent has been achieved. Such purification is considered essential to accurate experimental results.

Chemotherapy.—About 2 years ago a long-range project was set up to test the chemotherapeutic value of various synthetic chemicals on transplantable, spontaneous, and induced animal cancers, and then by a screening process to employ the most promising of such compounds on human cancer cases. This project has required the collaboration of synthetic chemists, pathologists, cytologists, and clinicians (interdisciplinary group research). So far, over 300 compounds have been put through preliminary tests and 29 have yielded sufficiently interesting results to warrant further study.

The compounds are put through a screening process as follows:

(1) Acquisition or synthesis of the compounds.

(2) Determination of the toxic dose.

(3) First screening on tumor-bearing mice to separate the active from the inactive compounds.

(4) Cytopathological changes produced in tumors with a single subcutaneous injection.

(5) Second screening in tumor-bearing mice—further potency and toxicity experiments with the active compounds.

(6) Physiological and pharmacological studies of the most promising among the active compounds.

(7) Testing the effect of the compounds on advanced cancer patients in collaboration with the Lankenau Hospital in Philadelphia.

Nutrition is one of the most important environmental factors affecting living organisms or cells. Its role in the genesis, control, and treatment of cancer is being investigated. The objectives of our present nutritional studies are: to establish the relation of specific nutritional factors involved in the origin and growth of tumors; to compare the effect of nutritional factors on normal and malignant tumors; and to apply such observations to the treatment and growth control of experimental cancer.

Tissue cell cultures.—The results of these studies, which have been in progress for a number of years, may be summarized as follows: A normal cell strain of mice has been changed in vitro into a malignant cell strain; control cultures as well as those treated with carcinogenic agents were changed.

Division of Infectious Diseases

The research of the Division of Infectious Diseases is carried on in the laboratories of the Division and its branches—Rocky Mountain Laboratory, Hamilton, Mont.; Office of Malaria Investigations, Memphis, Tenn., and its substation at Columbia, S. C., and an office in the Canal Zone. In the Rocky Mountain Laboratory, vaccines against spotted fever, typhus, and yellow fever are manufactured and research is conducted on a number of rickettsial and virus diseases. The laboratories in Memphis, Columbia, and the Canal Zone are engaged primarily in the study of malaria and mosquitoes that transmit malaria.

Rickettsial Diseases

Tsutsugamushi disease.—Immunization studies in mice, using a variety of antigens, were completed. In general these antigens were not effective when administered subcutaneously and the challenge inoculum given intraperitioneally. It was demonstrated that the concentrated antigen had sufficient egg protein as a contaminant to cause sensitization of mice and, in many instances, death from anaphylaxis when the third dose of antigen was administered intraperitoneally or intravenously.

Typhus fever.—Electron microscope studies revealed that typhus fever rickettsiae bear considerable amounts of capsular material, and that this substance is stripped from the rickettsiae when they are shaken with ether under certain conditions. This material forms spherical molecules which are specifically agglutinated by antityphus globulin. The substance cannot be sedimented by ordinary centrifugation and thus appears to be identical with the soluble antigen.

Following a conference in Mexico a member of the Typhus Unit, at the request of the Pan American Sanitary Bureau, made a visit to Guatemala, where considerable louse-borne epidemic typhus was seen. Plans were made with the Guatemalan government and the Pan American Sanitary Bureau for a continuing program for the control of typhus fever by the combined use of vaccine and DDT.

Q fever.—Four strains, including one from Panama and one from Italy (the so-called Balkan grippe agent), were compared by cross-immunity tests in guinea pigs, by complement fixation tests, and by agglutinin adsorption tests. They appeared to be similar as far as specificity was concerned, but antigens prepared from them varied considerably in sensitivity.

An outbreak of Q fever in laboratory personnel was studied from clinical, epidemiological, and laboratory standpoints.

General.—Three basic methods utilizing ether have been developed for the preparation of antigens from yolk sacs infected with rickettsiae. The three methods have been applied to *R. prowazeki*, *R. mooseri*, *R. burneti*, *R. rickettsii*, and *R. orientalis*, and the results compared.

A method for preparing purified suspensions of rickettsiae from infected yolk sacs without the use of ether was developed. It consists in washing the rickettsiae by centrifugation and resuspension, and adsorption of yolk-sac material on diatomeceous earth.

A total of 8,896 serums was examined for evidence of rickettsial infections by the complement fixation test.

Virus Diseases

Encephalitides.—Serum virus neutralization tests against various viruses were performed as follows: 136 serums for choriomeningitis, 94 for western equine encephalomyelitis, 33 for eastern equine encephalomyelitis, and 137 for St. Louis encephalitis.

Twenty-five spinal fluids and 21 miscellaneous human and animal specimens were inoculated into various animals in an effort to isolate the causative agents, which were suspected of being viruses.

Homologous serum jaundice.—The human inoculation study was concluded. Evidence was obtained that prophylactic ultraviolet irradiation of blood plasma or serum may be a practical procedure.

Studies of the effect of ultraviolet irradiation on various filtrable virsuses and serum antibodies was continued. Serum antibodies were found, in general, to be quite resistant to such irradiation.

Influenza.—The study of experimental chemotherapy was continued. An epidemic in Cleveland, Ohio, was investigated in cooperation with the United States Navy. Evidence was obtained that the epidemic was due to influenza B virus. An attempt to control the epidemic by influenza virus vaccine given at the peak of the epidemic was apparently unsuccessful.

Rabies.—Standardizations of ultraviolet irradiation techniques for the preparation of rabies vaccines were carried to completion.

Mumps.—A mumps vaccine was prepared from chick embryo virus, and a satisfactory antibody response followed its use in human beings.

Psittacosis-lymphogranuloma venereum group.—Active ornithosis virus was isolated from 15 of 100 wild pigeons captured in the city of Baltimore during 1945. The recovery of psittacosis virus from 8 of 14 parakeets in a shipment received from North Carolina emphasizes the constant hazard in handling psittacine birds. Virus grown in the allantoic fluid of developing chick embryos was found to be a satisfactory antigen for complement fixation tests.

Bacterial Diseases

Pneumonia.—The study of the effectiveness of the antigenic polysaccharide of the pneumococcus as a preventive measure against lobar pneumonia was continued. The experiment in Washington County, Md., was terminated. The total of person-years in the immunized group was 96,830, and in the control group 241,027. The pneumonia rates per 100,000 in the immunized and in the controls were, respectively: lobar, 24.04 and 68.87; bronchial, 14.21 and 40.25; unspecified, 4.37 and 12.45; virus, 8.13 and 7.47. The total number of cases among those immunized was 46 with a rate of 50.28 per 100,000, and in the control group 311 with a rate of 129.03 per 100,000.

Investigation was continued on the isolation of polysaccharides from certain vegetables and the assay for their ability to precipitate pneumococcus serum antibody and to stimulate active immunity against pneumocci in white mice. To date, polysaccharides from 129 different vegetables have been studied. Some were found to be antigenic, and a few as antigenic as the active polysaccharide of the pneumococcus.

Chemotherapy.—Chemotherapeutic studies against experimental tuberculosis and influenza virus were continued. Compounds have been synthesized with high in vitro and in vivo activity and with low toxicity for mice and guinea pigs.

The effect of five sulfa compounds on the fertility of mice and rats was studied. Reduced production of offspring resulted from oral administration of three of these compounds. The compounds affecting mice had little or no effect on the number of offspring of rats, but reduced fertility followed intake of other compounds that had no effect on mice. The evidence so far suggests that this sterility is not permanent, but rather is due to a lowered functional activity during the period of ingestion of the chemical.

Tularemia.—Lesions were produced in the skin of rabbits following intradermal inoculation with formalinized suspensions of *Pasteurella tularensis.* Ether extraction of such suspensions removed their toxicity. The factor responsible for the production of skin lesions was found to be intimately associated with the organisms, resistant to temperatures of 56° C. for 30 minutes, destroyed by boiling for a similar period, and neutralized by specific immune serum.

Tuberculosis.—Household associates of sputum-positive cases in Alabama were studied to determine the attack rate and method of spread of the disease. The etiology of pulmonary calcification was studied in Iowa; school children and adults in selected counties were X-rayed, tuberculin tested, and histoplasmin tested. The results have not as yet yielded definite proof of etiology.

During the past year, intensive studies of chemotherapy of tuberculosis were continued, and several compounds with marked effect on experimental tuberculosis were found.

Dysentery.—The sulfonamide evaluation studies carried on in part under contract with the Office of Scientific Research and Development were concluded. The readily absorbed sulfonamides were, on the whole, more effective, with sulfadiazine and sulfapyrazine being rated best in their effect on both cases and carriers of *Shigella* infection. Of the poorly absorbed compounds, sulfasuxidine was the most effective. None of these drugs was of benefit in the treatment of *Salmonella* infections.

A preliminary study of streptomycin in *Shigella* and *Salmonella* infections was made. Definitive results were not obtained.

A cooperative study with the States Relations Division, Malaria Control in War Areas, on fly control and its effect on the diarrheal diseases, particularly bacillary dysentery, was begun in Hidalgo County, Tex. This work is in progress.

Rheumatic fever.—Experiments in progress for several years have indicated the important function of toxic substances (descriptively termed albumin-bacterioplasma conjugates) in the pathogenesis of this disease. They have well defined and distinctive properties demonstrated clinically and in animals. Under certain conditions they are elaborated upon interaction between either natural or synthesized body fluids and living cultures of appropriate pathogenic microorganisms, notably differentiable strains of Group A hemolytic streptococcus.

Laboratory service.—Requests for the isolation and identification of bacteria were received from health departments, hospitals, clinics, and physicians in 15 States, Alaska, and the District of Columbia. Among the groups in the Federal Government which were given assistance were the Veterans' Administration, the Food and Drug Administration, Marine Hospitals, the Coast Guard Academy, Coast Guard Barracks in the District of Columbia, and the Federal Correctional Institution at Danbury, Conn.

Epidemiology.—The Office of Epidemiological Studies is continuing the Norfolk communicable disease studies and is preparing reports on factors influencing the spread of common communicable diseases of children. The effects of new measles, mumps, whooping cough, and diphtheria antigens were evaluated with a view of their ultimate use in public health practice. Other field studies of the epidemiology of histoplasmosis and tuberculosis were inaugurated.

Reprint No. 1137 from Public Health Reports, Questions and Answers on Smallpox and Vaccination, was completely revised.

Fungus diseases.—Two fatal cases of histoplasmosis were reported from Loudon County, Va.; these cases were in brothers and represent the first cases in contact with each other. Two other cases had previously been reported from this county, and clinics and other methods of study have been set up to determine whether there is actually an unusual incidence in this area.

Studies of antibiotics were resumed. The fungicidal properties of several new drugs were investigated. Two hundred and twenty-seven miscellaneous specimens were received for examination, culture, and identification.

Rocky Mountain Laboratory

Vaccines.—In the Rocky Mountain Laboratory at Hamilton, Mont., vaccines against spotted fever, typhus, and yellow fever are manufactured. During the past year, increased amounts of tick-tissue and chick-embryo yolk-sac types of Rocky Mountain spotted fever vaccine were manufactured to meet a greater demand, chiefly from eastern States. The amount distributed was 642,886 ml., 53,272 ml. more than in 1945.

The Laboratory is at present the sole producer of yellow fever vaccine in North America. During the year a reservoir of approximately 1,500,000 doses of yellow fever vaccine was manufactured and stored for use in case of emergency.

It has been shown that yellow fever vaccine desiccated at room temperature is as stable as when desiccated at −38° to −40° C.; that desiccated vaccine held at −12° to −32° C. for 2 or 3 years is sufficiently potent for use, whereas vaccine stored at −5° to −7° C. and at higher temperatures shows considerable loss of active virus; and that desiccated vaccine is still potent after several weeks' exposure to a tropical temperature.

Q. fever.—Four genera and five species of ticks have been found infected in nature.

Rocky Mountain spotted fever.—Tests of penicillin for the treatment of Rocky Mountain spotted fever in laboratory animals have given uniformly negative results. Numerous new chemical compounds were tested as tick-killing agents for use on clothing.

Siberian tick typhus.—Two strains of rickettsiae were established from desiccated mouse tissue received from Russia and supposed to represent strains of a tick-borne rickettsial disease occurring in Siberia. The identities of these rickettsiae have not yet been determined.

Australian rickettsial disease.—Studies of the Phillips strain of a rickettsial disease occurring in Queensland, Australia, suggest that it may represent a new disease.

Encephalitides.—Studies of Japanese B encephalitis suggest that a more potent vaccine can be prepared from the tissues of chick embryos if the eggs are inoculated by the yolk-sac rather than by the allantoic route.

Positive virus-neutralization tests against both western equine encephalomyelitis and St. Louis encephalitis have been obtained with blood samples from western Montana wild ducks and California turkeys. Positive tests against the St. Louis virus were obtained from a wild goose and a pheasant in western Montana.

Tularemia.—Studies on the occurrence of tularemia organisms in natural waters and of tularemia among sheep handlers were continued at the Rocky Mountain laboratory. A case of tularemic pneumonia in a member of the staff responded dramatically to streptomycin. Treatment was started on the eleventh day. Recovery was rapid and the period of convalescence was short.

Spirochetes.—A spirochete from hen's eggs obtained for use at the laboratory was found first in 1943. It has again been observed in eggs from the same flocks under conditions which definitely suggest its natural occurrence in the eggs. Its identity has not been determined. No spirochete occurring in the tissues or eggs of hens has previously been reported in the United States and no recognized vector of fowl spirochetosis occurs locally. This observation is of potential interest to laboratories using embryonated hen's eggs for culturing pathogens or for the manufacture of vaccines.

Tick paralysis.—Five cases of tick paralysis were reported during the spring of 1946 from Montana, Idaho, Washington, and Wyoming. Two were fatal.

Entomology.—An exhaustive monograph on the tick genus *Ixodes* in North America was completed and published. Study of the argasid ticks was resumed. An intensive study of the biology of certain chiggers (mites) which attack man has been pursued. Attempts to raise mites for experimental purposes have been partially successful. A number of chemicals have been tested for miticidal effects. A new genus and species of chigger from the Northwest was discovered and described.

Malaria Investigations

Malaria investigations were carried out in the National Institute of Health laboratories in Memphis, Tenn., Columbia, S. C., and in the Canal Zone.

Attempts to produce an immunizing agent in malaria were continued, using *Plasmodium gallinaceum* in chickens. Although a suitable method for inducing immunity without actually producing infection has not been discovered to date, several novel observations have been made:

(1) When infection was maintained in chicks by serial passage with infected blood, mosquitoes biting these chicks transmitted an infection quite unlike the usual disease. This infection is characterized by a predominance of the exo-erythrocytic forms of the parasite in the brain and viscera, with death occurring at about the time that the end of the normal prepatent period ordinarily would be expected.

(2) An exo-erythrocytic type of infection, quite similar to that produced in the manner described above, was also effected by subcutaneous inoculation of chicks with emulsions of brains containing these forms of the parasite.

(3) Chick embryos inoculated with emulsions of brains containing exo-erythrocytic forms developed fatal infections in which intra-erythrocytic parasites were rare or absent, death being due to extremely heavy infection with exo-erythrocytic forms. In those embryos in which parasites were found in the erythrocytes, no pigment was formed, even in mature schizonts, during the first day or two of parasitemia. In embryos or recently hatched chicks surviving beyond this initial stage, pigment appeared in apparently normal quantities by about the third day. These effects appear to be capable of unlimited serial passage.

A systematic search is being conducted for the pre-erythrocytic stages of *P. cynomolgi* in monkeys. The current study is based on results obtained in chicks, and it is expected that it will be a long-term project.

Numerous attempts to transmit human and simian malarias to chick embryos were unsuccessful.

Field experiments supported in part by the Office of Malaria Control in War Areas (States Relations Division), included the following:

(1) A field experiment covering 24 square miles was carried out to determine whether a 2-percent solution of DDT in oil, applied at the rate of 6.5 gallons per acre, at 10-day intervals, would suffice to control mosquito production. Results indicated successful control, with a 40-percent reduction in over-all cost of the larviciding.

(2) An experiment was conducted to determine whether a 2-percent solution of DDT in oil, applied at 1,000-foot intervals to a large drainage ditch, at the rate of 6 gallons per acre, at 10-day intervals, would effect reduction in mosquito production under conditions ordinarily extremely difficult to control. The operation was successful from the standpoint of mosquito control, and a reduction of 80 percent in cost was obtained.

(3) Field experiments showed that a single application of DDT residual spray applied at the rate of 100 milligrams per square foot in inhabitated houses controlled *Anopheles quadrimaculatus* for a period of 17 weeks, the approximate duration of prevalence of these mosquitoes.

(4) Examination of 13,812 thick-blood films from the Southeastern United States and Puerto Rico was carried on as part of the Malaria Control in War Areas malaria incidence survey.

The use of pellets of paradichlorobenzene containing DDT to provide a residual larvicidal effect in mosquito-producing water was investigated in the field. The method appears to offer considerable promise in selected areas.

Investigations have shown that the male gametocyte of human plasmodium, just before formation of the gametes (exflagellation), appears to contain four pairs of chromosomes, one of which is heterotypic and may be related to sex determination. Two chromatin masses, representing either four or eight chromosomes, enter the gamete. In certain instances, gametes are formed which do not contain chromatin elements and, consequently, are sterile.

Studies on immunity in human malaria have indicated a partial immunity to a homologous strain of *P. malariae* 41 months after primary infection. Failure of an exotic strain of *P. vivax* to induce immunity against the St. Elizabeth strain was confirmed; the reverse was also true. Negro neurosyphilitics showed a statistically significant degree of resistance to foreign *P. vivax* as compared to white neurosyphilitics.

Investigations of the relapse in *P. vivax* infection indicate that relapse patterns tended to be consistent with individual patients, with little difference in parasite levels during early and late relapses.

A small percentage of patients exhibited transient asymptomatic parasitemias between clinical relapses. Following the last clinical attack, some were observed which persisted for months. These asymptomatic parasitemias showed on the average a low parasite density with proportional gametocyte production.

Division of Physiology

The investigations in this Division are directed toward improving methods of prevention and treatment of disease, both through a better understanding of fundamental physiological and biochemical changes and by the development of new chemotherapeutic and antibiotic agents. The areas in this broad field which are now being actively explored are the development and testing of new antimalarial drugs, dental caries and related oral diseases, new narcotics, cardiovascular diseases and aging, new drugs and antibiotics for tuberculosis, insecticides and rodenticides, surgical and burn shock, and dietary deficiency diseases.

Antimalarial Drug Testing Section

Screening of drugs in chicks infected with gallinaceum malaria.—During the year, 392 different drugs were tested in therapeutic trials against blood-induced *Plasmodium gallinaceum* in chicks. One hundred and twenty-eight drugs not previously tested were found active; of these, 78 showed activity equal to or greater than that of quinine. No compound was found curative in this test. Those with the highest activity were the 8-amino-quinolines, one of which (SN 13,276) was 128 times as active as quinine. This group is now undergoing systematic exploration in man.

Prophylactic tests against sporozoite-induced *gallinaceum* malaria employed 442 different drugs in 702 tests. None of the new drugs tested was found to prevent the infection; four (one sulfa drug, two naphthoquinones, and one methylpyrimidine) brought about appreciable delay.

Trial of drugs in man.—Analysis of the data from the United States Penitentiary Hospital, Atlanta, Ga., is nearly completed. No drug tested as a prophylactic against the St. Elizabeth strain permanently prevented infection. These included quinine, quinacrine, chloroquine (SN 7,618), SN 5,241, SN 6,771, SN 6,911, and sulfadiazine. These drugs were suppressive only. Chloroquine (SN 7,618) was the most satisfactory therapeutic drug tested.

Another clinical testing unit for antimalarials was established at the Federal Correctional Institution, Seagoville, Tex., with the cooperation of the Federal Bureau of Prisons. It is planned to continue trial of the promising compounds in inmate volunteers. Concurrent studies will be possible in immunity and other aspects of the long-continued host-parasite relationship characteristic of this species of malaria.

Antimalarial and Narcotic Section

Antimalarials.—A total of 383 drugs was evaluated for toxicity (10 of these were new narcotics). These were of several radically different types aimed at evolving a prophylactic agent. One of a series of acridine compounds showed high therapeutic activity.

Narcotics.—The section has renewed its activity in this field. To investigate several synthetic narcotics originating in Germany, which may possess high potential addiction liability, a cooperative program was organized with the Bureau of Narcotics, United States Public Health Service Hospital at Lexington, Ky., Marine Hospital, Baltimore, and several pharmaceutical houses. Two drugs, amidone and morpholino-methylbenzo-1,4-dioxane have been under study for some time. N-allylnormorphine has been studied to evaluate its antagonistic action to morphine in the treatment of drug addicts. A new drug developed in this laboratory, 6-methyldi-hydromomorphine, was found to possess extraordinarily prolonged analgesic action, and gives promise of being a valuable morphine substitute.

The relative inhibiting effect of morphine, metopon, and amidone on plasma and red blood cell cholinesterase was measured.

Dental Research Section

Major activity of this section centered on studying the effects of low fluorination of the Grand Rapids, Mich., public water supply on the incidence and prevalence of dental caries. In the second year of this study 9,000 Grand Rapids children were given a complete dental examination and bacteriological studies of the oral flora were made on 2,500 children. For determining expectancy rates 8,000 children were examined at Aurora, Ill., and bacteriological studies completed on 1,500 of this group.

Laboratory studies on the etiology of dental caries in experimental animals was continued. The effect of specific acid-radicals on the molar teeth of rats has shed some light on the problem of tooth erosion.

A method of studying tooth surfaces in situ and in vitro by means of metal-shadowed collodion replicas was developed. Replicas were studied under the optical microscope and will presently be examined at the higher magnifications provided by the electron microscope.

Studies were continued during the year on the incidence and variation in attack rates of ulcerative stomatitis (Vincent's infection) in Coast Guard personnel. Preliminary analysis of the data indicates that Vincent's infection is essentially a noncommunicable disease, closely associated with poor oral hygiene.

The research associate of the American Dental Association continued studies in oral spirochetology, developing techniques and media for mass cultivation to be used in immunization studies.

Section on Gerontology

The work of this section, necessarily curtailed during the war, is now being renewed in collaboration with the Baltimore city hospitals. During the year studies were made of kidney function in aged males and further evidence was obtained of a physiological impairment in kidney function before clinical symptoms of kidney disease appear.

The determination of the effect of vitamins of the B complex on work and fatigue was completed. Reports on the effectiveness of nicotinic acid amide, pyridoxine, riboflavin, and certain combinations of vitamins in improving the work output of perfused frog muscles are being published. A significant increase in work output was produced when some of these vitamins were present in proper concentration.

Pharmacology Section

Chemotherapy and biochemistry of the tubercle bacillus.—A series of newly synthesized sulfones and three antibiotics was studied. The three antibiotics investigated were (*a*) concentrates derived from culture filtrates and mycelium of *Nocardia coeliaca*, (*b*) streptothricin, and (*c*) streptomycin. From the results to date the n-propyl derivative of diaminodiphenylsulfone appears to be the most effective and least toxic of the sulfones, while streptomycin has proved to be the most effective single chemotherapeutic agent. Combined treatment in guinea pigs with streptomycin and either of two sulfones showed an effectiveness three times as great as the sum of effects from the individual components.

Shock studies.—Therapy of experimental shock in mice effective at 26° C. was not effective at 19° to 22° C. It was shown that this is due to a toxin produced in the injured area which causes a reduction of the effective blood volume and the metabolic rate resulting in hypothermia. In hemorrhage this was shown to be due to anoxia; in tourniquet shock a toxic factor was shown to arise in the injured area which can be neutralized or excreted if the animal is kept warm. Tying off the injured areas abolished the effect.

Insecticides and rodenticides.—Fourteen compounds chemically related to DDT were investigated, and the results have shown that the neurologic syndrome and hepatotoxic actions of DDT are related to five halogens. Partial dechlorination or substitution of the aromatic halogens, as by methoxy groups, greatly reduces toxicity.

The mode of action of napthylthiourea (ANTU) was worked out in several species of laboratory animals. More recently work was begun, at the request of the chairman of the Subcommittee on Rodent Control, on the toxicity and mode of action of sodium fluoroacetate (1080).

Nutrition Section

Amino acids.—Studies were begun on the effect of various amino acids on blood regeneration following hemorrhage. Preliminary results indicate that the ability to regenerate hemoglobin and red blood cells depends on an adequate supply of certain amino acids.

Ascorbic acid.—The metabolism of ascorbic acid in the guinea pig has been investigated. It was found that young, rapidly growing guinea pigs excrete only half as much ascorbic acid per unit of body weight as adult animals.

The urinary excretion of ascorbic acid was also studied in adult animals during the healing of skin wounds. There is a decrease in the amount of the vitamins excreted during the period of active healing.

Nicotinic acid.—Five types of diets have been developed which will produce mild to severe nicotinic acid deficiencies in rats. Either nicotinic acid or tryptophane added to the basic diets will cause remission in all of the signs of the deficiency. Ventriculin is also effective. Nicotinic acid is about 50 times as effective as tryptophane on the basis of weight. It has been found that there is a toxic factor in gelatin and zein, which is responsible for the deficiency.

Microbiology.—A considerable number of microbiological vitamin assays were done and a study of the possible relation between vitamin deficiencies and bacterial and virus antibodies was started.

Blood dyscrasias.—Further studies were conducted on the role of folic acid in blood dyscrasias. The work on the anemia and granulocytopenia in rats deficient in pantothenic acid was continued.

Clinical studies.—The field station in collaboration with Tulane University School of Medicine was opened during the year and studies were started on (1) the effect of folic acid on the anemia of premature infants; (2) the effect of folic acid on the leukopenia resulting from deep X-ray therapy; and (3) nutritional deficiencies in pregnancy.

Biologics Control Laboratory

The principal function of the laboratory is the control of biologic products, required by the Public Health Service Act of 1944.

In addition to the administrative duties and laboratory tests associated with the control of biologics, considerable time and work are involved in the inspection of the licensed producing laboratories, in research work concerned with the improvement of the various products, and in improvements in methods of control testing. Each licensed producing laboratory is inspected at least once each year, at which time production and control methods are reviewed and conferences held with the personnel responsible for production. This type of work is essential to maintain the quality of licensed products and to develop improved methods.

At the request of the Surgeon General of the Army, a medical officer was detailed to temporary duty in Korea and other areas of the Far East. His work related to the epidemiology and control of smallpox.

Another medical officer assisted in developing international control measures over yellow fever, and took part in other conferences on problems related to biologics.

Minimum Requirements for Licensed Products

Requirements for safety, purity, and potency were prepared for certain new products, and some existing requirements were revised. The products involved were citrated whole blood, packed or resuspended red cells, filtered plasma and serum, unfiltered plasma, thrombin, thioglycollate culture medium, diphtheria antitoxin, diphtheria toxoid, smallpox vaccine, cholera vaccine, epidemic typhus vaccine, pertussis vaccine, and anti-*Hemophilus influenzae* type b serum.

Cooperation With the Armed Services

Biologic products routinely used by the Armed Services received close attention, and many were given special laboratory tests after their return from storage under field conditions. Enemy products were examined. Certain other products still in the trial or investigative stage received preliminary control testing in this laboratory.

Control of Licensed Products

Control tests.—Routine control tests of licensed products were made as follows:

Tests for sterility	2,732
Tests for potency	545
Tests for pyrogenicity	135
Tests for toxicity	374
Identification of cultures	84
Tests for solubility and stability	328
Special tests and miscellaneous	476
Passed on manufacturers' protocols	1,478
	6,152

Control of pyrogens.—Clinical and laboratory evidence indicate that serum reactions following therapy with serums or antitoxins in some instances may have been due to pyrogens. Such reactions may have serious consequences to the patient. Consequently, the requirements for safety and purity of this type of product have been amended to include the pyrogen test. This has forced some of the producing laboratories to make extensive improvements in their production methods.

Drying biologics from the frozen state.—This research work was continued because of its importance in preserving the quality of certain products, particularly those involving labile antigens or live cultures.

Arsenicals.—Each lot of the trivalent organic arsenicals continues to be control tested prior to distribution by the manufacturer. The number of lots of the more commonly used compounds released in the last fiscal year was as follows:

Neoarsphenamine	247
Sulfarsphenamine	11
Dichlorophenarsine HCl	18
Oxophenarsine	51

Experimental syphilis.—Evidence was obtained that 50 units of penicillin per milliliter in citrated (A. C. D.) whole blood did not prevent the transmission of experimental syphilis. Rabbits inoculated 1 hour, 1 day, and 2 days after the addition of pencillin to the whole blood developed typical syphilitic lesions.

Blood grouping and the Rh factor.—Minimum requirements for blood grouping and anti-Rh typing serums were prepared to assure the preparation of potent and specific products, thereby lessening transfusion reactions and providing more reliable Rh typing.

Thrombin.—Control of thrombin preparations continues with resulting uniformity in the potency of available clotting agents.

Ultraviolet light.—Studies were continued in the use of ultraviolet light to kill organisms intended as antigens, to sterilize biologic products, and to detoxify sterile antigens. Ultraviolet light was shown definitely useful, particularly for sterilizing biologics which cannot be filtered, and for preserving antigenic qualities of products otherwise unstable.

Rabies vaccine.—It was found after extended use that the potency test for rabies vaccine gave inconsistent results when immunized animals were challenged with various strains of virus, and that a uniform challenge rabies virus was needed. A control virus determined to be satisfactory for this purpose was prepared for distribution to each laboratory in a comparable form and titer. This control virus will also be used for veterinary vaccines by the Bureau of Animal Industry.

Allergenic extracts.—Work was continued on the problems concerned with the control of allergenic extracts.

Hemophilus influenzae.—Research work was completed establishing minimum requirements for anti-*Hemophilus influenzae* type b serum. A provisional unit value based on a mouse-protection test was adopted.

The sensitivity of a relatively large number of *H. influenzae* cultures to penicillin, penicillin X, and streptomycin was determined in the test tube and in the mouse. Streptomycin was the most effective, but the penicillins showed considerable activity. With a single agent there was direct correlation between sensitivity in vitro and in vivo.

Results of combined therapy with streptomycin and type-specific antiserum, with streptomycin and sulfadiazine, and with streptomycin and penicillin X showed a marked complementary effect.

Hemophilus pertussis.—Experimental studies of a mouse protection test for determining the antigenicity of pertussis vaccine were extended and a tentative test was established. A large number of the laboratories have started the testing of their vaccines and it is anticipated that minimum requirements for pertussis vaccine will go into effect soon.

Media for the sterility test.—The experimental work which formed the basis for the revision of the media used in determining the sterility of biological products was completed.

Influenza virus.—Extensive investigations were made of the immunization of white mice by influenza virus vaccines. Progress was made in formulating what is thought to be a more accurate test for antigenicity.

Influenza virus vaccine was recognized for license during the year. This reemphasizes the urgent need for additional work to improve its antigenic properties. Various adjuvants which will delay absorption of the injected vaccine are being studied by research groups and some are showing promise. Another step to improve the quality has been the adoption of a reference standard vaccine which is supplied to each producing laboratory.

Pneumococcus.—Work continued on maintenance of penumococcus cultures and control typing serums. However, there was a steady decline in the therapeutic use of antipneumococcic serum which resulted in a decrease in the amount of control work necessary.

Bacteria of the upper respiratory tract.—Work was done to determine the value of vaccines intended to stimulate immunity to bacteria present in the upper respiratory tract as invaders secondary to the common cold. It was concluded on the basis of animal experiments that some immunity to certain organisms could be obtained through oral immunization but the quantity of organisms needed makes the method impractical.

Bacillary dysentery.—A toxoid was prepared from the toxin of the Shiga type of dysentery bacteria by inactivation with ultraviolet irradiation without significantly altering the antigenicity of the material. Studies of the toxicity and antigenicity of these preparations were made in mice, rabbits, and monkeys, and in a small series of human beings. Animals given the toxoid were protected against toxin and to some extent against infection with virulent Shiga cultures. Serums from vaccinated rabbits and monkeys protected mice against both toxin and culture.

Although the exotoxin is completely inactivated in this toxoid, the residual toxicity of the endotoxin was still great enough to cause a moderately severe reaction in about one-third of the humans injected.

Meningococcus.—The use of antimeningococcus serum continued to decrease, but the demand for typing serum necessitated maintenance of control facilities.

Chemistry Laboratory

The Chemistry Laboratory conducts research relating to the structure and synthesis of the carbohydrates, and carries on cooperative work with other divisions in connection with studies of tropical diseases, nutrition, determination of fluorides in drinking water, and analytical work as required.

Sugar Researches

Fundamental studies relating to the structure and configurations of the carbohydrates were continued. These studies included work on methyl α-D-altroside and its transformations; structural studies on acetals of sugar alcohols; D-rhamnose and its derivatives; reaction of sugar phenylosazones with copper sulfate; a study of the octose sugars derived from D-mannose; and an investigation of the stereochemical structure of crystalline racemic arabinose.

In connection with the methyl α-D-altroside study, the following new crystalline compounds have been prepared and characterized: Methyl 2,3,4-tribenzoyl-6-tosyl-α-D-altroside, methyl 2,3,4-tribenzoyl-6-desoxy-6-iodo-α-D-altroside, methyl 2,3,4-tribenzoyl-6-desoxy-α-D-altroside and methyl 2,3,4,6-tetrabenzoyl-α-D-altroside.

The condensation of D-talitol with formaldehyde was shown to produce four crystalline methylene derivatives, namely, 2,4:3,5-dimethylene-D-talitol, 1,3:4,6-dimethylene-D-talitol, 2,4-methylene-D-talitol and 1,3:2,4:5,6-trimethylene-D-talitol.

An investigation was completed showing that the rare sugar, D-rhamnose, can be prepared from readily available methyl α-D-mannoside by a relatively simple series of reactions. In this connection, methyl 3,6-anhydro-α-D-mannopyranoside was prepared from methyl 2,3,4-tribenzoyl-6-tosyl-α-D-mannopyranoside.

The phenylosazones of the following sugars were prepared, purified, characterized, and then allowed to react with copper sulfate to produce the corresponding phenylosotriazoles: D-arabinose, L-arabinose, L-rhamnose, sedoheptulose, and mannoheptulose. A number of derivatives of the phenylosotriazoles were prepared and their physical constants determined.

Other work in this field included completion of the study of melezitose monohydrate and its oxidation by periodate; work on 2-tosyl-Dgalactosan; the study of 3,5-benzylidene and 3,5-methylene acetals of gluco-*gulo*-heptitol; preparation of pure crystalline tritosyl-dimethylene-perseitol and tribenzoyl-dibenzylidene-perseitol; isolation of polygalitol from *Polygala Senega*; work on *Sedum spectabile* for isolation of sedoheptulose; investigation of the purification of stevioside, one of the principles of *Stevia rebaudiana;* and the preparation of comparatively large quantities of certain intermediate derivatives for use in future researches.

Cooperative Work

Two new compounds, namely, sodium antimonyl glucoheptonate and sodium calcium antimonyl gluconate, were prepared for testing as filaricides in the Zoology Laboratory. There were also made, for similar testing, several preparations of radioactive tartar emetic and sodium arsenite.

In connection with a folic acid investigation in the Division of Physiology, 230 microbiological determinations of folic acid were made. Chemical and enzymatic procedures were also applied on the activation for micro-organisms of another similar substance present in crude liver concentrate.

Studies on Fluorides in Water

The studies on fluorides in drinking water were continued. In cooperation with the Division of Physiology, 70 samples of drinking water were received from various localities for chemical analyses, including fluoride determinations.

Analytical Work

There were carried out 57 analyses of neoarsphenamine and sulfarsphenamine; 13 of dichlorophenarsine hydrochloride, 16 of oxophenarsine hydrochloride, 2 of arsphenamine and 1 of bismarsen; 16 examinations of pharmaceuticals and 1 of diphtheria antitoxin; analyses of a poisonous mixture, 2 kidney stones and a sample of soil; 22 preparations of standard solutions, 43 hydrogen ion standards and 20 permanent color standards; complete analyses of 68 samples of water and 192 miscellaneous determinations; and 23 micro determinations in connection with the sugar researches and synthetic work.

Industrial Hygiene Research Laboratory

The studies performed in this laboratory and in the field are directed toward the recognition, prevention, and control of definite industrial hazards. Solutions are sought for the important health problems which result from the introduction of new chemicals and new processes into industry.

Experimental animals are used to appraise the biologic effect of chemicals and of various physiologic stresses. Volunteers from the professional research staff of the laboratory are used as subjects when animal work indicates a sufficient margin of safety. When possible, the worker in his industrial environment is the subject. The final subject of study is the worker who has become ill from his occupational exposure.

Toxicology

The appraisal of the toxicity and potential dangers of methyl chloride was extended to include the influence of dietary constituents, particularly the sulfur-containing amino acids, cystine, and methionine. Similar work was continued on the effects of dichloropropane and dichloroethane. The function of cytochrome C in cyanide poisoning was elucidated and some light was shed on several other anomalous aspects of cyanide poisoning. Other toxic agents studied during the year included: lead, benzene, carbon tetrachloride, stibine, and several chlorinated hydrocarbons.

A number of reported human cases of DDT poisoning were given a thorough clinical examination, but none of the symptoms observed could be related to DDT exposure. In cooperation with the Cancer Institute the carcinogenic activity of the solvents used as vehicles for DDT was studied in experimental animals. Through the toxicologic investigation of 22 derivatives of DDT it was shown that the characteristic action of DDT depends upon the presence of the trichloroethane group, and also upon substitution of the hydrogen atom in the para position in the phenyl ring by halogen or an ethoxy or propoxy group.

Physical examination of a human volunteer before and after the ingestion of 770 mg. of DDT dissolved in olive oil failed to reveal any subjective or objective evidence of untoward effects, although evidence of absorption was obtained.

Work was carried on concerning the mode of action of DDT, using insects as experimental material because of their peculiar sensitivity to this poison. Current experiments are directed toward an understanding of the physiologic or enzymatic differences between insect species which account for the remarkable variations in reaction observed.

Following oral doses of 50 to 100 mg./kg. of DDT in olive oil to a lactating goat, quantities of 0.5 to 1 mg./gm. were secreted in the milk, the DDT being dissolved in the fat globules of the cream. The susceptibility of these animals to DDT poisoning depends largely upon the amount of body fat, the more adipose animals being more resistant.

Much of the laboratory's research on toxicologic problems was concerned with the reactions of toxic substances on metabolism. This information was applied to the development of effective methods of prevention, prophylaxis, and therapy of industrial poisonings. Isolated tissues and enzyme systems were employed to study the fundamental mechanisms of the toxication and detoxification of alkyl halides (e. g., dichloroethane). The role of sulfur compounds in these mechanisms was investigated; radioactive sulfur was used as a tracer.

Nuclenoics Biology

Some of the biologic effects of neutron bombardment from the cyclotron were studied in cooperation with the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. In general, the effects were the same as those produced by other ionized radiations, namely, damage to the blood and blood-forming organs and to the gonads. More than half of the matings of rats, of which either the male or female had been exposed two or more times, were sterile. In the fertile matings, the average litter was reduced in size and abnormally small offspring frequently appeared.

The cyclotron bombardment of ammonium nitrate was terminated and the extraction of the carbon 14 is in progress. This radioactive carbon will be used as a tracer of toxic organic compounds. A photographic method was developed for the measurement of neutron intensities. Techniques developed at this laboratory for the localization of uranium and thorium minerals in polished section were applied to the localization of radioactive compounds in animal tissue.

A simple, single-spore technique developed to determine the genetic split-up of the penicillin-producing mold, *Penicillium notatum*, was applied in the study of the effect of neutron radiation on penicillin mutations. A tracer study of penicillin containing radioactive sulfur in the treatment of venereal disease was begun in cooperation with the Venereal Disease Research Laboratory, United States Marine Hospital, at Staten Island, N. Y. Other tracer studies in progress are those which are employing radioactive krypton in the transfer of inert gases in animal tissue, radioactive sulfur in the mechanism of toxication of the alkyl halides, and radioactive lead in following the course of lead poisoning.

Biophysics

Cooperative research with the Genetics Department of Carnegie Institution placed emphasis on studies of the fundamental function of radiation on living cells. It was found that pretreatment of drosophila flies with near-infra red radiation increased the effect of X-rays.

Study of the photoisomerization of ergosterol was resumed with the analysis of spectroscopic data on the changes produced by monochromatic ultraviolet in ergosterol, vitamin D_2, and intermediates from some 60 experiments conducted before the war. Molecular structure and mechanism studies will be continued in this field.

The intense sonic oscillator was used to disperse finely ground insoluble solids in water to facilitate the study of the biologic effect of these materials without introducing an intermediate carrier. A primary standard for the colorimetric determination of hemoglobin was evolved and applied to the midget colorimeter previously developed at this laboratory.

Microbiology

On the basis of the promising results obtained during the second year of a field study at the naval barracks at Sampson, N. Y., on the effectiveness of ultraviolet radiation in the control of air-borne infection, the project was transferred to the permanent United States Naval Training Center at Great Lakes, Ill. Epidemiologic data obtained from the field study at the National Training School for Boys indicated that the manner of disease prevention is more important in the control of respiratory disease spread than ultraviolet radiation.

Research was continued on the survival of *Aerobacter cloacae*, the organism responsible for an acute respiratory illness among cotton workers. Laboratory and field studies were made to determine the heat resistance of anthrax spores in hair and bristles.

Aviation Physiology

An extensive series of oxygen breathing equipment tests on human subjects, begun under contract to the Navy, were completed. The experimental results of these studies are applicable to the design of high altitude oxygen equipment.

With the completion of this contract work, research was initiated on five basic physiologic problems: (1) The transfer of inert gas across living cell membranes, employing radioactive krypton; (2) the cytology of the carotid glomus of the cat, to establish the role of this chemoregulative center in the reflex response of the respiratory system at altitude; (3) search for adequate quantitative methods for analysis of muscle hemoglobin which can be applied to the elucidation of problems in cellular respiration common to aviation medicine, fatigue, industrial poisonings, and diseases; (4) methods for obtaining objective, photographic records of barotrauma, particularly of sinuses and eustachian tube, in order to investigate the physiologic factors upon which prevention and treatment may be based; and (5) objective techniques for obtaining measurements of respiratory functions which will permit the establishment of correlations between vital capacity, maximum tidal volume, and rate of breathing with various forms of respiratory disease.

In addition to their research activities, the members of the staff contributed their active services to more than 50 committees. The principal governmental agencies with which this Laboratory is carrying on cooperative research projects are: National Bureau of Standards; Bureau of Aeronautics and Bureau of Ships, United States Navy; Bureau of Entomology and Plant Quarantine, Department of Agriculture; Food and Drug Administration; United States Employees Compensation Commission; and Post Office Department. During the past year over 1,000 requests for specific information from private individuals were answered by members of the laboratory's staff.

Pathology Laboratory

During the past year this laboratory was occupied with independent research problems and cooperative studies with other divisions of the National Institute of Health. At Carville, La., research was continued on the various problems of leprosy. Certification of stains was regularly done for the Biological Stain Commission. Diagnostic histopathologic services were furnished to the various hospitals caring for Public Health Service beneficiaries. The grant-in-aid program was given consultation service in the fields of pathology and hematology.

Dietary and Toxicologic Investigations

Studies on hematopoiesis.—The histopathologic study of the important role of folic acid in blood formation was concluded early in the fiscal year. With this as a background, other deficiencies were also investigated in order to determine their relationship to the formation of blood.

Rats on a purified diet deficient in pantothenic acid developed granulocytopenia and in some instances anemia. Bone marrow of these rats showed atrophy somewhat similar to that seen in folic acid deficiency. The animals responded favorably to combined folic and pantothenic acid therapy, but the treatment of the condition is still being studied.

Rats on a purified diet deficient in riboflavin also developed a granulocytopenia and bone-marrow atrophy similar to that seen in folic-acid deficiency. These particular animals responded to treatment with folic acid. Other rats on this diet developed an anemia with erythroid hyperplasia of the bone marrow. Riboflavin was effective in the treatment of the anemic animals.

Other studies.—Experimental hepatic cirrhosis was investigated in order to determine its relationship to normal anatomic features of the liver. Two methods were used to produce the cirrhosis, (1) low-protein, choline-deficient diets, and (2) the administration of carbon tetrachloride. By effectively marking the venous system of the liver with a charcoal-gelatin mass, it was found that the connective-tissue trabeculae formed along the course and connected the hepatic veins rather than the portal spaces as had previously been thought. Further studies are anticipated in this field.

The laboratory cooperated in a study of human-liver cirrhosis in order to determine the morphologic differences, if any, between the cirrhotic stage of toxic liver injury and the Laennec type. A Nationwide panel of 10 pathologists is working on this problem.

Pathologic changes in experimental animals exposed to neutrons were studied.

The toxicologic effect of phosphorus fumes in experimental animals was studied. The exposure to fumes was made at the Tennessee Valley Authority laboratory and the tissues were then sent to the National Institute of Health for examination.

Other dietary and toxicologic studies were made on the following substances: thiamin, niacin, pyridoxine, biotin, choline, cystine, methionine, various fatty acids, PABA, vitamin E, ascorbic acid, casein, sodium, potassium, insecticidal oils, ANTU, TNT, thiourea, dichloroethane, and fluorine. The effects of the physical agents, X-ray, ultraviolet light, and buried sutures, were also investigated.

The Industrial Hygiene Unit of the Pathology Laboratory studied the histopathologic changes caused by the following compounds: Stibine, methyl chloride, cumene, DDT, tungsten, several solvents for DDT, xylidine, dichloropropane, hydroquinone, catechol, and carbon tetrachloride.

Studies in Infectious Diseases

The pathology caused by *Shigella* toxins in experimental animals has been investigated.

In order to understand the action of certain drugs in the treatment of filariasis, a study was started on *Dirofilaria immitis* in dogs. The histologic changes seen in the ovary and uterus of live filaria obtained from dogs treated with trivalent antimony were necrosis, degeneration, or abnormal development of the ova. Usually there were no microfilaria present. These findings explain the absence of microfilaria in the blood of treated dogs without death of the adult worms.

The role of lymphocytes in immunity to rabies was investigated. During the course of this study the normal hemograms of two strains of mice were determined and published.

The acute malarial lesions in chicks produced by *Plasmodium gallinaceum* were studied, and a comparison of blood-induced and sporozoite-induced infections made. The normal histology of the chick was also studied.

The effect of drugs on experimental guinea pig tuberculosis was investigated.

A long-term study of the pathologic lesions found in untreated syphilis was continued.

Investigations in the treatment of leprosy continued. Studies covering a 4-year period of treatment with promin were made by examining biopsy specimens from these cases. It was found that promin helped prevent the dissemination of the bacilli in the body. Other drugs were used to determine their effect on experimental rat leprosy. Inoculations of animals with human leprosy material continued. Growth promoting factors were also studied in the culture work on the tubercle bacillus.

Other infectious diseases studied include Q fever, ornithosis, tularemia, schistosomiasis, filariasis, trypanosomiasis, leishmaniasis, herpes, and poliomyelitis in mice.

Histochemical Studies

A technical manual was prepared for workers in pathology and histology. It emphasizes the underlying principles of technical procedures in order to correlate many of the apparently diverse histopathologic methods now in general use.

Rather exhaustive studies are in progress on the preservation and staining of glycogen in tissues. The genesis, the chemical nature, and the spectroscopic characteristics of pigments produced by the formalin fixation of tissue were investigated. A simplified method for staining some tissues with di-ammine-silver hydroxide was developed; the procedure has been published.

The long-term study on the factors which govern the staining of connective tissue was completed and published. The effect of metals on Giemsa stains was investigated. Improved methods were found for demonstrating both hemoglobin and amyloid in tissues. Preliminary studies were made on the preservation of tissue enzymes after various types of fixation, and also on the problem of permanent stains for cholesterol in tissue.

Diagnostic Service

Diagnostic histopathologic services were rendered to the various hospitals of the Public Health Service, Coast Guard, Bureau of Prisons, Office of Indian Affairs, Maritime training stations, and other Government agencies. A total of 1,555 surgical cases and 152 autopsies were examined during the year.

Miscellaneous

After material had been collected in the field, headquarters were established in the Pathology Laboratory by the Medical Officer in Charge, Pathologic Investigation Unit, Office of Inter-American

Affaires, for the study of Guatemalan ulcer or onchocerciasis. This work was completed.

Instruction in hematology was given one trainee from Venezuela.

Zoology Laboratory

This Laboratory is concerned with the investigation of diseases caused by protozoan and worm parasites, including their distribution, epidemiology, diagnosis, prevention, and treatment.

Protozoal Diseases

Amoebiasis.—Various improvements were effected in the production of amoebiasis antigen. The supernatant fluid from amoebae grown for 168 hours in cellophane tubes was found to be more highly antigenic than was the sediment, thus indicating that the dissolution of the organisms liberates antigenic material which passes into the supernatant. By further treatment, a tenfold concentration of antigen was obtained. This antigen was not only more potent than any other thus far produced but was free of the anticomplementary properties of antigen produced by other methods. As a result of these studies, antigen for the complement fixation test for amoebiasis has been placed on the market by a commercial organization.

Trypanosomiasis.—In order to obtain information which might aid in developing a satisfactory method of therapy for infections due to *T. cruzi*, studies on the respiratory metabolism of the organism were carried out in cooperation with the Catholic University of America. The rate of oxygen consumption was measured in the Warburg apparatus and calculated on the basis of cubic millimeters oxygen consumed by 100,000,000 organisms per hour. The rate decreased regularly with increasing age of the cultures. Evidence indicated that the flagellates early in their cultural existence consume predominately carbohydrates and later predominately proteins. Oxygen consumption was independent of oxygen tensions within the range 160 and 38 mm. Hg, but began to decrease at an undetermined point between 38 and 6 mm. Hg. Consumption increased within the temperature range of 13° to 40° C., while the thermal death point fell between 40.4° and 43.4° C. A plot of Arrhenius' equation showed two straight lines intersecting at 28° C. The two temperature increments may be related to the life cycle of *T. cruzi* in its respective mammalian and insect hosts. Of the oxidase inhibitors tested, strong inhibition of the O_2 consumption was obtained with sodium azide, potassium cyanide, and hydrogen sulfide. No inhibition was indicated by pyrophosphate, a fact which demonstrates that the respiration of *T. cruzi* resembles that of baker's yeast rather than that of vertebrate muscle. The strongest influence exhibited by dehydrogenase inhibitors was observed with propyl carbamate and high concentrations of ethyl carbamate. Approximately 10 percent of the O_2 consumption may be due to substances with sulfhydryl groups, as indicated by a slight but distinct inhibition provoked by dilute iodoacetate and by arsenite.

Schistosomiasis

Transmission.—Experiments were continued in an effort to ascertain whether species of snails indigenous to the continental United States might serve as intermediate hosts of the species of schistosomes infecting man, with special emphasis on *Schistosoma japonicum.*

Unsuccessful attempts were made to obtain infections with *S. mansoni* in the following domestic species of snails: *Gyraulus parvus, G. similaris, Helisoma anceps, H. duryi eudiscus, H. d. intercalare, H. d. normale, H. d. seminole, H. trivolvis* from 5 different localities, *Planorbaris corenus, Planorbula armigera,* and *Tropicorbis donbilli.* Additional experiments were conducted with *Tropicorbis havanensis* originally collected at Baton Rouge, Louisiana. This species was previously reported as capable of serving as an intermediate host of *S. mansoni.* Cercariae of *S. mansoni* from *T. havanensis* were capable of infecting mice, and the infection from these mice was transferred to other specimens of *T. havanensis* and thence into other mice. In further experiments, infection from the Puerto Rican intermediate host, *Australorbis glabratus,* was transferred to rodents, thence to *Tropicorbis,* back to rodents, and thence to *Australorbis,* thus indicating the adaptability of the parasite to the domestic intermediate host.

A total of 362 domestic snails belonging to the family Amnicolidae was exposed to infection with *S. japonicum,* including *Amnicola integra, A. limosa, A. percuta, Hydrobia longinqua, H. monas, H. stearnsianna, Pomatiopsis lapidaria, Potamopyrgus coronatus, and Littoridina monroensis,* as well as certain as yet unidentified species. Infection was not established in any of these species, although species of *Hydrobia* and *Littoridina* appeared to definitely attract the miracidia. Species of snails other than amnicolids which proved refractory to infection with *S. japonicum* included *Physella gyrina, P. hawni, P. heterostrophia peninsulae, P. pomilia, Stagnicola palustris elodes,* and *Pseudosuccinea columella.*

Prevention and control.—At the request of military authorities, experiments were continued on the chemical impregnation of uniform cloth and the use of repellent ointments for the protection of troops required to enter waters infested with schistosome cercariae. More than 130 compounds or combinations of compounds were used in the uniform tests with approximately 2,000 mouse exposures to *S. mansoni* or *S. japonicum.* N–N-Diethyl lauramide in impregnated into herringbone twill uniform cloth in an amount of 4 cc. per square foot of fabric protected mice after 96 hours of rinsing in water. Benzyl benzoate, alphamethylbenzyl benzoate, and dibutyl phthalate plus Tween 80 in the above-mentioned concentration were each effective after at least 54 hours rinse; these compounds are still being tested. Tetraethylthiuram monosulfide afforded protection through 39 hours of rinsing but not through 42 hours; other compounds were effective after shorter periods of exposure in water. Certain water-repellent compounds gave complete protection as long as the cloth remained impervious to water. Chemical Warfare Service Ointment E6–R8 provided protection against the penetration of cercariae. Certain cercaricidal liquid agents applied directly to the skin may be of value but additional tests are needed.

Studies were conducted at Lexington, Ky., on the effect of sewage treatment processes on ova and miracidia of *S. japonicum.* In 13 tests under optimum conditions, the majority of the eggs settled below a 10- to 12-inch level in raw sewage within 2 hours, the average retention time for primary sedimentation in treatment plants; a few ova were found in the top inch for as long as 4 hours. In preliminary tests on the survival of eggs in digesting sludge, maximum survival time was 41 days at fluctuating laboratory temperatures and 24 days at 27° C. In view of the probable failure of primary sedimentation to remove all eggs from raw sewage, tests were conducted with secondary treatment processes. Eggs were recovered in trickling filter effluents in all of 15 tests with filter operation at 1 to 4 million gallons per acre per day (g. a. d.); the percentage of recovery at a slow rate of operation (about 1 million g. a. d.) varied from 2.5 to 20, whereas at more rapid rates (3 to 4 million g. a. d.), 30 to 63 percent of the eggs passed the filter. There appeared to be some correlation between percentage of eggs recovered and the efficiency of the filter as measured by reduction of biochemical oxygen demand (B. O. D.) and suspended solids. No eggs were recovered from the effluent of a 36-inch sand filter of 3.6 effective size operated at a rate of 100,000 g. a. d. Preliminary tests indicated that *S. japonicum* ova can hatch in activated sludge of an alkaline pH; some hatching was noted in sludge with pH 6.7 to 6.9. Eggs hatched readily in a composite sample of settling tank effluent following final aeration in the activated sludge process.

Chemotherapy

In cooperation with the Carnegie Institution of Washington and the Chemistry Laboratory of the National Institute of Health, investigations were carried out by means of radioactive tracers on the distribution and mode of action of types of compounds employed in the treatment of tropical parasitic diseases. Human volunteers with schistosomiasis were treated with tartar emetic prepared from radioactive antimony. The antimony disappeared rapidly from the blood but was slowly excreted. Mathematical analysis of the rates of blood clearance and excretion indicated that the antimony of tartar emetic was converted into a different compound which was released from the tissues into the blood. Apparently this converted compound is less toxic and more rapidly excreted than is tartar emetic.

Immunology

In cooperation with the War Department, experimental flocculation antigen was employed in tests on 104 individuals infected with *S. japonicum*, of whom 87, or 83.7 percent, reacted positively. Of 75 acute cases in military personnel, 58 were positive, while all of 29 chronic cases of the disease in civilians gave a positive reaction.

Intradermal tests with whole-worm antigen were carried out on 127 military cases of schistosomiasis; of these cases, 100 were positive and 27 negative. The patients had received one or more courses of chemotherapy, which no doubt influenced the results of the tests.

Research Grants Office

The Research Grants Office was established by the Surgeon General in the National Institute of Health on January 1, 1946, for the purpose of implementing and expanding the research grant-in-aid program authorized under Public Law 410, section 301, Seventy-eighth Congress, which vested in the National Advisory Health Council legal responsibility for recommendation as to approval by the Surgeon General of all such applications. The expansion of the program was occasioned by the proposed liquidation of the Committee on Medical Research of the Office of Scientific Research and Development and the decision that certain research projects conducted by this agency should be continued by the United States Public Health Service.

In order to have the technical advice needed for their consideration of applications for grants-in-aid for research, the National Advisory Health Council approved the classification of the field of research into major categories with a study section for each to be composed of special consultants expert in the respective fields. Ten of these special study sections had been organized by June 30, 1946, and were making available to the Council the scientific review desired.

During the 6 months of operation in the fiscal year, 67 grants-in-aid in the field of general medical research, representing a total of $1,027,450 were approved for research scientists and investigators in various universities, laboratories, and other institutions. During this same period, the National Advisory Health Council reviewed and recommended 129 applications for grants-in-aid for research totalling $2,079,695 to be paid out of fiscal 1947 appropriations. These 196 research projects represent a total of 71 universities and institutions located in 26 States.

BUREAU OF MEDICAL SERVICES

The Bureau of Medical Services is responsible for all foreign and insular quarantine activities; medical inspection of aliens; medical services rendered to beneficiaries of the Service; and administrative supervision of Service officers assigned to certain governmental agencies and of medical care services conducted in collaboration with other governmental agencies. The Bureau functions through an Office of the Chief of Bureau, the Hospital Division, Foreign Quarantine Division, Mental Hygiene Division, an Office of Dietitics, and an Office of Nursing.

Research Program

The development of a program of clinical research at the hospitals and other medical care stations of the Bureau of Medical Services was given impetus this year.

A Board of Clinical Research Investigation has been appointed and has met twice with a subcommittee of the National Advisory Health Council. With more than 120,000 in-patients and nearly one-half million out-patients treated each year, the hospital activities offer a significant volume of clinical material for observation and research. The program was discussed and an effort made to stimulate the interest of all commissioned officers in establishing and continuing an active, Service-wide, and well-coordinated clinical research program. The proposal was received with enthusiasm and about 25 applications were received. In almost every instance the detailed presentation was excellent. With few exceptions the projects were approved and the investigations have been initiated.

Continuous Caudal Analgesia

The graduate medical course on the study of continuous caudal analgesia for obstetrics, inaugurated in 1943 in cooperation with the Philadelphia Lying-In Hospital and the Jefferson Medical College in Philadelphia, was transferred on December 1, 1945 to the University of Tennessee College of Medicine in Memphis.

During their assignment in Philadelphia, Public Health Service officers supervised the administration of continuous caudal analgesia to 3,600 patients and trained 650 physicians and 50 nurses in techniques of administration and management of patients.

A statistical analysis of the 3 years' work in Philadelphia revealed the following: (1) With continuous caudal analgesia, 25 more babies were saved per 1,000 live births than had been saved in a comparable control series conducted with other methods of systemic narcosis; (2) the death rate for premature babies weighing less than 5 pounds 2 ounces, was 168.2 per 1,000 as compared with 294.2 in the control group with general systemic narcosis, and 256 per 1,000 live births for the United States as a whole; (3) the maternal mortality was 7.9 per 10,000 deliveries as compared with 19.3 per 10,000 deliveries in the control group; (4) there was less maternal and fetal morbidity in the caudal group than in the control group.

Since December 1, 1945, two medical officers from the Service have been assigned to the University of Tennessee College of Medicine and the John Gaston Hospital in Memphis. From that date until the end of the fiscal year, these officers supervised 950 continuous caudal analgesias in obstetrics and trained 250 physicians and 50 nurses. Physicians attending the course in Memphis have come from 36 States, and from China, the Dominion of South Africa, Costa Rica, Chile, and the Dominican Republic.

Hospital Division

The Hospital Division continued throughout the fiscal year 1946 to provide professional care for its legal beneficiaries through the operation of hospitals, dispensaries, and small medical relief stations.

Professional Services

Twenty-six marine hospitals, varying in size from 25 to 875 beds, are located in the principal sea and river ports of the United States and its possessions. They are general medical and surgical in character, with the exception of the Neponsit Beach and Fort Stanton Hospitals for the treatment of tuberculosis, the Carville Marine Hospital for the study and treatment of leprosy, and the Ellis Island Marine Hospital, where neuropsychiatric patients are in the majority. In the larger hospitals all of the major medical and surgical specialties are represented except pediatrics. In those hospitals not highly departmentalized, specialty services are provided for by the employment of consultants on part-time or fee basis.

A special department of oncology has been established at the Baltimore Marine Hospital for the study and treatment of cancer.

The reduction in Coast Guard personnel has resulted in a decline in the volume of obstetrical service to dependents in marine hospitals. This service was developed to a high degree during war years in three of the larger hospitals and provided the stimulus which led to the development of caudal analgesia. Through the work and demonstrations of Surgeons R. A. Hingson and W. B. Edwards with the cooperation of the Philadelphia Lying-in Hospital and the Memphis Clinic, this method of pain control has become widely accepted not only in obstetrics, but in surgery in general.

A physical medicine and rehabilitation program for marine hospitals has been submitted and approved. During the year the chief emphasis has been on raising standards in the physical therapy departments of all stations. All vacancies and new positions are being filled by fully qualified therapists, and professional instead of subprofessional status is being sought for all qualified physical and occupational therapists and medical social workers. Three of the hospitals have become affiliated with approved schools of physical therapy who assign students for clinical instruction. One hospital is also affiliated for the instruction of occupational therapy students.

One of the most important services of hospitals is the out-patient department. Preliminary observation and post-hospitalization follow-up so often determine the ultimate success or failure of treatment that the development of this service is of prime importance. In these departments of marine hospitals during the past year, 305,645 patients were afforded relief.

The Fort Stanton and Neponsit Beach Marine Hospitals are devoted exclusively to the treatment of pulmonary tuberculosis. The removal of tuberculosis patients from the busy and overcrowded wards of general hospitals has greatly improved morale which is so vital in the treatment of this chronic disease. The Neponsit Beach facility, leased from the City of New York, although satisfactory for emergency needs, is inadequate and should be replaced by a new modern structure at the earliest possible date.

For many years the study and treatment of leprosy in the United States have been almost exclusively in the hands of the Public Health Service. The Carville Marine Hospital is the only institution devoted to this purpose in North America. During 1946 the total number of patients hospitalized at Carville was 439.

New therapeutic agents, including streptomycin, are being studied continuously and definite advances are being made.

The good results of sulfone therapy in leprosy are reflected in the increased number of patients discharged during the fiscal year. The number of patients discharged because of arrested disease (37) is approximately twice the usual number for other years.

The Advisory Committee on Leprosy in the United States was organized during the past year. At its first meeting in May 1946, subcommittees were appointed to study various aspects of the care, treatment, and rehabilitation of lepers. The committee includes representatives of public and private groups interested in the problem.

The management of neuropsychiatric disorders became of increasing concern during the hazardous war years. A neuropsychiatric department was established during 1946 at the San Francisco Marine Hospital, bringing to four the number of marine hospitals providing this special service. It is in this specialty that the shortage of trained personnel is most keenly felt.

Interne training approved by the Council on Medical Education of the American Medical Association is available in 10 of the marine hospitals. A total of 104 recent graduates completed this training during 1946 and it was from this group that most of the commissioned medical officers of the Public Health Service were recruited. The development of resident training programs approved by the American College of Surgeons in 10 marine hospitals in 1945 has been retarded by the heavy demands made upon the time of medical officers and residents in the routine care of patients.

As in previous years, medical officers from the Hospital Division have made important contributions to medical science and the results of their research and observations have appeared in many of the medical journals of the country.

The addition of a pathologist and one internist to the staff of the Carville Leprosarium has permitted them to devote more time to the study of this disease. Among the important studies being made at the present time is the effect of streptomycin on the course of leprosy and the compilation of data on its toxicity. The studies to evaluate promin and diasone were continued.

The clinical application of chemotherapeutic and antibiotics recently introduced is being evaluated in almost every marine hospital. Studies in cardiology, geriatrics, peripheral vascular diseases, and allergy are among the studies of disease that are being conducted. The development of new surgical technique in the treatment of dislocations, the conservative treatment of ruptured peptic ulcer, and the operative treatment of ruptured intervertebral disc are a few of the subjects which are problems of current interest in several of the hospitals.

Of no less importance than the hospitals are 116 out-patient dispensaries and smaller medical relief stations. In addition to the diagnosis and treatment of disease, these facilities perform a wide variety of other services, including preemployment and retirement physical examinations, vaccinations and inoculations, dental care, and medical consultative services. Services not available at the clinics are provided for by contract with private laboratories, hospitals, and consultants.

The Washington Dispensary also directs the health services for Federal employees stationed in Washington. During the year, several new health units were established in Federal departments, and cooperative supervision of several others was inaugurated at the request of the agencies concerned. In-service training classes for nurses were continued. Infirmaries at Federal Residence Halls were operated on a nursing level. Orientation courses were given at the request of the State Department and UNRRA, for employees being sent to foreign coutries. Nutrition exhibits were set up and a follow-up program conducted in several sections of the Navy Department. The Tuberculosis Control Unit has been operating effectively and photofluorographic chest plates have been taken at the rate of approximately one per minute throughout the year.

Administration

Following the reorganization of the Hospital Division last year, progress has been made in the development of its functions as rapidly as the appointment of qualified personnel would permit. During the year, the services of a maintenance engineer and a matériel officer were obtained. A medical officer has recently been assigned to the direction of the out-patient service program, a physiotherapist to assist the medical officer in charge of the development of the physical medicine program, and a pharmacist detailed to develop the Marine Hospital Pharmacy Service. Social workers, physical and occupational therapists formerly under the Division of Nursing are now serving under the direction of the Physical Medicine and Rehabilitation Section of this Division.

Among the major studies completed or under way are studies of the cost of rations, personnel required to staff hospitals of varying bed capacity, utilization of hospital space in relation to staffing and patient load, a pilot study of the functions and operations of the pharmacy at Staten Island Marine Hospital, and studies of the out-patient and physical therapy services.

Four fellowships have been granted by the Rockefeller Foundation to provide training to medical officers in hospital administration. The Civil Service Commission has authorized a professional rating for nurses and dietitians who meet established standards, and efforts are being made to obtain the same status for physiotherapists.

The Marine Hospital at Sheepshead Bay, N. Y., was closed on June 30, 1946, due to the closure of the Coast Guard Base at Manhattan Beach, the marked reduction in the War Shipping Administration Training Program at Sheepshead Bay, the distance of the hospital from New York City, and other factors. A study has also been made of the Marine Hospital at Louisville, Ky., with a view to its closing as a general hospital. The patient load of this hospital has been considerably reduced by the opening of the Nichols General Hospital for veterans in that area.

The program of emergency medical relief to repatriates was transferred from the Office of the Surgeon General on January 1; it is expected that it will be closed out within the fiscal year 1947. Following the termination of hostilities, greater numbers of evacuees and repatriates were brought to the United States. Approximately 16 out of every 100 such persons received treatment through the United States Public Health Service. Because the care of civilian defense worker cases is restricted to those persons whose injuries were sustained on or prior to April 30, 1945, only 3 percent of the funds were used for this purpose in this fiscal year.

Responsibility for the physical examination of merchant seamen signing on vessels operated by the Maritime Service was transferred from the War Shipping Administration on July 1, 1946.

The conversion of Civil Service employees to a 40-hour work week has been a major problem. Also, many of the professional personnel who entered the Public Health Service during the war are now leaving, and attendants and maintenance personnel are difficult to obtain. Another condition that the hospitals have been facing is the backlog of construction, major repairs and alterations, and shortage of nonexpendable equipment accumulated during the war years.

A certificate for award to some 2,200 volunteer workers who served in the Marine Hospitals during the war was printed and is being distributed. Several organizations continue to carry on activities in the hospitals, covering such services as occupational therapy, recreational programs, and personal services to patients.

Statistical Analysis

Marine Hospitals.—The daily average patient census was slightly higher than that for fiscal 1945, the peak war year. The in-patient admissions, totaling almost 100,000, were only slightly less than the record for previous war years.

The daily average census of American merchant seamen rose 11 percent over that of 1945, reflecting in part a tendency to seek medical care which had been postponed under the pressure of war. The veteran patient load rose over 31 percent. The daily average patient census of Coast Guard personnel and their dependents declined steadily during the fiscal year, and the patient load of Employees Compensation Commission cases showed a moderate reduction.

Due to an increase in facilities, the bed occupancy ratio dropped from 93 percent of standard bed capacity in the fiscal year 1945 to approximately 86 percent in 1946. Excluding the hospital at Sheepshead Bay, now closed, marine hospitals operated at 88 percent of standard bed capacity during the fiscal year 1946. Several, including

Staten Island, San Juan, Puerto Rico, Seattle, and Galveston, operated at more than 100 percent of their standard bed capacity.

Marine Hospitals continued to operate out-patient clinics at peak levels. Out-patient admissions in all marine hospitals totaled approximately 300,000 in the fiscal year 1946, or about 20 percent more than in the previous year; the 940,000 out-patient treatments furnished were 10 percent greater than in 1945. These increases, however, were accounted for by the large volume of out-patient relief performed at Sheepshead Bay Hospital, acquired by the Service on July 1, 1945.

Medical relief stations.—The medical relief stations showed a moderate reduction in the amount of medical care furnished during the fiscal year 1946. Both the volume of out-patient treatments and the amount of hospitalization in contract facilities of the stations showed moderate declines.

Army hospitals continued to be used to supplement contract hospitals in some areas, as well as to afford emergency care to Service beneficiaries. Navy hospitals continued to hospitalize an appreciable number of Coast Guard personnel on a nonreimbursable basis in reciprocity for hospitalization of Navy personnel in United States Marine Hospitals.

Freedmen's Hospital

Freedmen's Hospital was established by Congress in 1865 for the care of Negro patients. At first it served mainly indigent patients, and many were hospitalized for domiciliary care only. It has since become primarily a general hospital for the treatment of acute medical and surgical patients. Since the establishment of Howard University College of Medicine, it has provided clinical facilities and training for students at that institution. Formal training for nurses and interns was instituted in 1894, and with the beginning of a true residency program in 1940, the hospital began to take on the character of a medical center.

At the end of the fiscal year there were 18 interns, 17 assistant residents, 5 residents, and 3 fellows on duty at the hospital. Training courses are conducted for student nurses (3 years), student dietitians (1 year), laboratory technicians and X-ray technicians (2 years each), and field work has been provided for social workers of Howard University.

Developments During the Fiscal Year

The average length of stay per patient was reduced from 17.9 days in the fiscal year 1945 to 16.9 in fiscal year 1946.

Through the cooperation of the Public Health Service, the District of Columbia Tuberculosis Association, and Howard University, a mass chest X-ray project, utilizing miniature film photofluorography, was established. In the first 11 months of the fiscal year, 12,611 persons were X-rayed, and 148 cases of tuberculosis diagnosed.

Other developments were: Wide and effective use of antibiotics; radium was obtained for more effective treatment of cancer; the clinical laboratories were further improved, and their use increased; a trained occupational therapist was appointed to the staff; rapid strides were made in the training program for residents.

The recent Metropolitan Health and Hospital Survey reported that the over-all medical program of the hospital was of a high professional grade. This survey also commented favorably on the out-patient care from the standpoint of concept, organization, number, manning, continuity, and caliber of services rendered.

In the out-patient service, 32 special clinics are held routinely. Chest, fluoroscopic, internal medicine, mass radiography, surgical diagnostic, and follow-up clinics are held daily except Saturday. The evening syphilology clinic is held 4 nights a week. Seven clinics are held 3 nights a week, and 19 once or twice a week.

Administration

The reorganization plan of July 1, 1940, placed Freedmen's Hospital directly under the Administrator of the Federal Security Agency. The Hospital also has certain relationships with the Public Health Service and with Howard University.

Three specific problems with which the hospital has been increasingly concerned are the inadequate number of personnel, the inadequacy of equipment, and the inadequacy and poor condition of the buildings.

The hospital converted to a 40-hour week during the fiscal year, but was not allotted a sufficient number of additional positions to do so without interfering with the efficiency of its operations. The condition of the general equipment is deplorable, and in many instances modern therapeutic equipment is not available. The buildings are for the most part in need of major renovation, and even if this were accomplished, the general hospital would not be adequate to meet the demands upon it.

In spite of these handicaps, the administrative and professional staffs are continuously planning and working to provide the highest possible type of hospital and medical care.

Mental Hygiene Division

Studies of Mental Hygiene

Studies of mental health problems have been continued and it has been estimated that there are 8,000,000 people in this Nation who are in need of psychiatric service. Some 600,000 of these are in mental hospital beds, more than all other hospital beds combined. An additional 1,400,000 are outside hospitals, but so ill that their productive efficiency is seriously impaired. There are also approximately 6,000,000 persons with neurotic and physchosomatic problems or with evidence of phychopathis personality.

Since mental illnesses are so widespread, so serious in their effects, and so costly, they constitute a public health problem. The Mental Hygiene Division has, therefore, devoted much time to the development of a program designed to promote and coordinate the several lines of endeavor in this field. This program can be outlined under five general headings: (1) improved and expanded opportunities for out-patient care; (2) improved in-patient care for the mentally ill; (3) training of personnel; (4) research into the causes, diagnosis, treatment, and prevention of the various mental disorders; and (5) dissemination of information on mental health both to workers in the field and to the public.

The responsibility for carrying out such a program was placed on the Public Health Service by the National Mental Health Act (Public Law 487, Seventy-ninth Congress, approved July 3, 1946). This act authorizes (1) grants-in-aid to universities, hospitals, laboratories, other public or private institutions, and to individuals for research; (2) the establishment of a national institute of mental health in the Washington area for conducting research; (3) assistance in the training of personnel in matters relating to mental health; and (4) grants-in-aid to the States to assist in the development of more adequate mental health programs at the community level.

During the year, the Division continued systematic field studies to evaluate existing mental health facilities in the different States, and to aid in the visualization of the problems and programs involved. The scope and content of these surveys include (*a*) the number and distribution of qualified psychiatrists within the various States, (*b*) inventories of public and private mental hospitals, institutions for the feeble-minded and epileptics, psychiatric units or services in general hospitals, child study homes, and other psychiatric institutional facilities, (*c*) community out-patient psychiatric clinics, (*d*) educational and training facilities for psychiatrists, clinical psychologists, psychiatric nurses, therapists, attendants, social workers, and other ancillary psychiatric personnel, (*e*) research facilities and programs, (*f*) official and nonofficial agencies operating mental hygiene activities, (*g*) State commitment laws and procedures relating to the care and treatment of the mentally ill, and (*h*) the possibilities of initiating, and enlarging preventive mental hygiene activities throughout the country. Twelve States were surveyed. In addition, a special study and report of mental health facilities in the District of Columbia was made in connection with a comprehensive Washington Metropolitan Health and Hospital Survey.

Fifty-five mental institutions located in various States throughout the country were surveyed, partially surveyed, or visited. Many inquiries were answered and advice given regarding mental hospital work, State administration, commitment laws, building plans, personnel, and nursing education. Assistance was rendered the Selective Service System in the supervision of conscientious objectors who have been at work in the mental hospitals. Information relating to mental health matters was widely disseminated through talks and lectures to interested groups and the publication of articles.

Clinic for Juvenile Court

Psychiatric service to the Juvenile Court of the District of Columbia was continued for the third year through the guidance clinic. The Public Health Service provides the staff, which consists of a psychiatrist, a psychologist, and a secretary-clerk. The work of the clinic has been severely handicapped by the resignation of the psychiatrist.

Most of the cases handled by the clinic are referred by the Juvenile Court, but cases are accepted from the Board of Public Welfare, the Women's Bureau, and various institutions and social agencies.

A total of 335 new cases, comprising 17 adults and 318 children, was seen during the fiscal year, including 262 boys and 56 girls ranging in age from 7 to 18 years. Stealing was the most frequent offense for boys, while the girls were most frequently referred because they were ungovernable.

The psychologist conducted 461 interviews during the year and the psychiatrist, during the 8 months on duty, conducted 294. Fifty-eight initial conferences, 113 follow-up conferences, and many informal ones were held. A total of 694 psychological tests was administered; 66.6 of the cases were below the average intellectually, and only 4.9 above. An unduly large proportion of juvenile cases were hampered in the full use of their intellectual capacities by emotional disturbances, environmental factors or a combination of unfavorable factors. More than half of the cases came from broken homes.

It is planned to increase the therapeutic program during the coming year and to develop some mutually beneficial training arrangements with teachers' colleges and other agencies.

Studies of Drug Addiction

Studies on the effect of narcotics on human beings and on lower animals were continued at the United States Public Health Service Hospital, Lexington, Ky. Research workers were especially interested in two cases of demerol addiction which confirmed their earlier findings that this drug is habit forming.

The clinical study on the effect of morphine addiction on body hydration was completed during the year. The results obtained show that the increase in blood water is not due to any true hydration of the blood, but is simply a function of a mild anemia which develops during the course of morphine addiction.

Administration of 1 to 3 milligrams of eserine to postaddicts produced a picture which closely resembled the abstinence syndrome. A great many of the effects of eserine could be prevented by prior administration of morphine sulfate, and the administration of morphine greatly alleviated the toxic symptoms. These findings are similar to those obtained in spinal dogs.

Studies of the influence of various drugs on the pain threshold were continued. Results obtained suggest that the true threshold for the perception of pain is not raised by morphine. It is believed that the Hardy-Wolff technique measures not the perceptual threshold, but rather a reaction to the pain. These questions will require further study.

The effect of single doses of 5 to 30 milligrams of N-allylnormorphine hydrobromide was studied in both nonaddicts and postaddicts. Doses of 10 milligrams or more of the drug produced increases in the pain threshold in about two-thirds of the subjects; but not as great or as well sustained as that seen following morphine. Single doses of the drug caused increases in systolic blood pressure, decreases in the pulse rate, and a depression of body temperature. Subjectively the drug produced a sensation of intoxication which lasted about 1 hour, followed by marked sedation and sleepiness. Administration of 20 milligrams during withdrawal from morphine resulted in a marked increase in the intensity of the abstinence syndrome. Furthermore, the effect of morphine in relieving the abstinence syndrome was blocked for about 2 hours after the administration of the N-allylnormorphine. The Division hopes to study the physical dependence liability of this drug in the near future.

Studies on the drug 10820, or 1,1-diphenyl-1 (dimenthylaminoisopropyl)-buranone-2 were begun. This is a powerful analgetic drug which has no chemical relationship to morphine, but which was found to produce many of the pharmacological effects of morphine, including constriction of the pupils, elevation of the pain threshold in nonaddicts and postaddicts, increases in blood pressure, and reduction in cardiac and respiratory rates. There was little effect on temperature. Five- to 30-milligram doses had no effect on the electrocardiogram of postaddicts other than the production of a sinus bradycardia.

Ten postaddicts volunteered for a study of the physical dependence liability of 10820. All of these men developed tolerance to the pain threshold elevating action after receiving 5 milligrams of the drug four times daily, and again after the dosage was raised to 15 milligrams. Tolerance to the pupillary constricting action was rapidly developed. During maintained addiction, slowing of the pulse was noted, respiratory rate diminished, constipation was evident, and all subjects reported considerable difficulty in initiating urination. Changes were noted in the electroencephalograms; partial tolerance to these effects developed after the administration of 30 milligram doses for 2 weeks. No dangerous toxic effects were observed in any of the patients although the dose was elevated to as much as 60 milligrams of the drug four times daily.

Two of the men were abruptly withdrawn after being on the drug for 28 days, with a dosage elevated progressively to 60 milligrams four times daily. No evidence of any abstinence syndrome developed in either subject. Further work both on men and other animals suggests that with sufficient dosage and sufficient duration, physical dependence and an abstinence syndrome probably occur.

Biochemical studies of the application of the morphine-molybdate-vanadate reaction to the qualitative detection of morphine in cold ethyl acetate of extracts of urine have been continued. This reaction is very sensitive and fairly specific. It is a very useful screen test for the detection of morphine in urine, and is now being used for clinical purposes.

Progress has been made toward the development of a sensitive and reliable test for opiates in urine. Such a test would be of great value in detecting the relapse of addicts before the dosage has become large.

Work has been continued on detection of barbiturates in the urine. The method has been improved; it appears to be specific, and is sensitive enough to detect barbiturates in urine of subjects after the ingestion of luminal, barbital, nembutal, amytal, and seconal, but not after the ingestion of sodium alurate.

Studies were made on the blood oxygen and carbon dioxide content on 12 postaddict subjects before and after the administration of from 75 to 125 milligrams of morphine sulfate. The most impressive point about the findings is the small magnitude of the changes in blood oxygen and carbon dioxide despite the respiratory depression noted after the administration of such large amounts of morphine.

A study was carried out on the effect of excessive body hydration on the electroencephalograms of nonepileptic postaddicts. The findings indicate that changes occurring in the electroencephalogram after pitressin hydration tests are not diagnostic of epilepsy.

Barnreuter personality tests were given and electroencephalograms made on 87 subjects. No correlation was found. The electroencephalographic patterns of subjects diagnosed as having psychopathic personalities did not differ from those of nonpsychopathic subjects.

Studies on the effect of morphine and morphine addiction on various parts of the central nervous system in animals were continued. It was found that morphine depressed recently learned conditional responses, but that older conditional responses were less affected. Morphine produced mild sedation in some excitable dogs and improved learning and differentiation.

The effects of from 1 to 5 milligrams per kilogram of the drug 10820 were studied in dogs and cats. The effects in all cases resembled those produced by morphine. Other studies involved larger doses. and the use of various neurosurgical preparations.

Hospitals for Drug Addicts and Mental Patients

The troublesome personnel problems of the war years still remain, although the return of some former employees from military service has been of assistance. The affiliation with local hospitals for training student nurses in psychiatric nursing has continued. This has augmented the nursing staffs, and both the patients and the nurses have benefited. Forty-three student nurses received training at the Fort Worth hospital and 31 at Lexington.

Much information on the subjects of narcotic drugs, drug addiction, and mental health problems was disseminated by the staffs of both hospitals through lectures and teaching courses to interested organizations and groups, and the publication of reports and articles.

Lexington, Ky.—The fiscal year 1946 was marked by three particularly significant advancements in the medical department, with continued emphasis on rehabilitation.

The first step has been training. The chief of the research department conducted a course in neurophysiology for medical officers. Additional attention was given to the training of some of the nonprofessional employees and plans have been formulated for a more extensive training course for these employees.

Another important change during the fiscal year has been the stratification of the addict patient population according to patients' prospects for rehabilitation. The reaction of the better type of patient to this procedure indicated its desirability.

The third progressive step has been the prompt disposal of problem cases among the patient population by means of a daily study of reports submitted by attendants. It is considered that this system is primarily responsible for the fact that the average population in the disciplinary section has been much lower during the past year than at any time previously.

The women's unit has been greatly overcrowded throughout the year. Day rooms had to be used as dormitories and an increase in the occurrence of adverse behavior was associated with this overcrowding. The full-time services of a woman physician for this unit have been available since December and benefit to a large number of patients has been noted.

The Social Service Division has inaugurated group instruction for patients regarding conditional release and parole procedures. This has led to better relationships between Social Service and the patient population. An increasing difficulty has been noted in finding placements for discharged patients because of the recent disruption of industrial conditions.

The Psychiatric Service had an average daily population of about 290 patients. All accepted types of therapy were utilized. Thirty-eight patients were given a total of 525 electric shock treatments. Four patients were given a total of 128 insulin shock treatments. Sodium amytal was used when indicated. Psychotherapy, including hypnosis, was a part of the daily routine, but its use was limited by the shortage of qualified personnel. Because of physical limitations, hydrotherapy has been confined to daily treatment of patients receiving electric shock treatment.

The occupational therapy shop is attended by an average of 30 patients daily. Similar treatment is made available to patients on the wards under guidance of the student nurses. The garment factory, laundry, furniture and woodworking shop, as well as the farming activities, have provided additional occupational therapy or rehabilitation facilities.

All psychiatric patients physically able and sufficiently cooperative were taken daily, weather permitting, to a recently established park on the grounds where games were played and refreshments served. Individuals and organizations from Lexington have sponsored games, dances, and picnics regularly. Sports such as softball, bowling, basketball, boxing, and table tennis were conducted, with the accent placed more on the participatory than on the spectator aspect.

Follow-up studies of former addict patients discharged from the hospital during the 5-year period 1940 to 1944 inclusive give some significant results. Out of a total of 3,139 male patients discharged as recovered, 15.2 percent were reported as abstinent; 53.6 percent, addiction status unknown; 26.5 percent, using narcotics; and 4.6 percent, dead. Of 235 female patients discharged as recovered, 18.7 percent were reported as abstinent; 42.1 percent, addiction status unknown; 34.8 percent, using narcotics; and 4.2 percent dead. Of the 1,390 male patients discharged against medical advice, 4.3 percent were reported as abstinent; 56.6 percent, addiction status unknown; 33.7 percent, using narcotics; and 5.2 percent, dead. A total of 556 female patients were discharged against medical advice, of whom 5.3 percent were reported as abstinent; 57.3 percent, addiction status unknown; 34.8 percent, using narcotics; and 2.3 percent, dead.

Most of those in the "unknown" category can well be considered to have attained social recovery, as most of them are discharged prisoner and probationer patients whose fingerprints are on record in the Federal Bureau of Investigation, and no report of their infraction of any laws has been received at the hospital. Such reports would be made to the hospital if any violations occurred.

Fort Worth, Tex.—This hospital has continued its program of care and treatment of psychiatric patients from the United States Navy, Marine Corps, Coast Guard, Army, and Merchant Marine, as well as of voluntary narcotic addict patients. The rate of admission of seriously psychotic patients has remained high.

The general health of the patients has been good and no epidemics have occurred. Every effort was made to assist the patients by the various forms of therapy. Electric shock therapy was extensively used during the year, 16,306 treatments being given.

Occupational therapy is an important part of the treatment program. In addition to 2 shop classes with an average of 100 patients each, regular ward classes have been initiated, including classes for disturbed patients. Three classes were held in the morning and 2 in the afternoon, averaging 60 patients each under the supervision of 2 trained employees.

Occupational therapy at this hospital has gone beyond the conventional practice of offering a "time filler" to restless but cooperative patients. A real effort has been made to help types of patients who are sometimes thought hopeless or too dangerous to handle. Salutary results have been obtained through special efforts with both mildly and acutely disturbed as well as suicidal patients. Another means of occupational therapy is provided by the garment factory, to which some 50 new patients are assigned each month. A procedure has been evolved whereby the job is adjusted to the worker instead of the orthodox method in which the worker is required to adjust himself to the job.

Recreation plays an important part in the treatment of patients. Patients from the closed wards were given 15 minutes of calisthenics daily, and in favorable weather morning and afternoon outdoor activities were available. In inclement weather the gymnasium was used on the same schedule instead of the outside facilities. The Red Cross unit at the hospital has also been active in providing a medically approved program of recreation and entertainment. Other organizations, groups, and individuals have contributed personal services and funds which have helped inestimably to maintain morale.

Special instructions have been given ward personnel in the handling of patients, and occupational therapy training has been extended to student nurse affiliates, students from a local university, and Navy corpsmen.

Foreign Quarantine Division

Incidence of Disease

The protection of maritime routes and air routes has assumed greater urgency with the reopening of shipping and the resulting movement of people. Plague, cholera, smallpox, and typhus fever have been disseminated in Asia and extended to other foreign areas. The general spread of smallpox involved American forces overseas and posed a serious quarantine problem. Outbreaks of smallpox occurred in Seattle and California, the outbreak at Seattle being attributed to a soldier whose case was clearly diagnosed at the time of the quarantine examination; epidemiological evidence pointed toward a break in the isolation technique in a local hospital.

Two cases of typhus fever arrived on troop ships at Seattle, and one at San Diego. Spread of the disease was averted by proper isolation and preventive measures, including inoculation, delousing, and detention.

Entomological surveillance has been continued around the major airports of entry. From the beginning of the war through this fiscal year, there have been no records of the implantation of new insect vectors of human disease by means of aircraft arriving at ports under the control of the United States.

Trend in Work Volume

Although there was a slight recession of both air and surface traffic following the end of the war, traffic volume showed an upward trend by the end of the fiscal year.

Plane arrivals from foreign countries totaled 36,072, only 250 less than in 1945; the passenger load receded from 490,642 in 1945 to 435,944 in 1946, but was high at the end of the year.

Vessels inspected totaled 27,474 as compared with 25,785 for the previous year. The passenger load of incoming surface traffic increased approximately 200 percent.

Detailed reports will be found in tables 18 through 22 of the appendix.

Resumption of Immigration Medical Work at American Consulates

At the request of the State Department, medical officers were assigned to European consulates for the examination of prospective immigrants. Medical Director H. A. Spencer was stationed in Paris to take charge of this program,

The chief of the division served on an interdepartmental committee on immigration of certain displaced persons and refugees from Europe. His work included the determination of the personnel, space, supplies, and equipment necessary in the American occupied areas for mental and physical examinations of prospective immigrants.

Mexican Border

Nearly 21,000,000 persons were inspected for quarantine and immigration purposes at the Mexican border stations, and over 9,000 persons were vaccinated. All imported laborers were deloused by the DDT dusting technique at the point of recruitment. The border stations checked the work and repeated the process when warranted. Smallpox vaccinations and first typhoid inoculations were administered, and chest X-rays given, at the point of recruitment. Medical certificates issued for venereal disease among Mexican aliens examined at the Nogales, Ariz., station increased in number in 1946.

War Brides

Alien spouses and children of servicemen, admitted to the United States under Public Law 271, seventy-ninth Congress, are medically examined at the time of arrival and in the absence of quarantinable disease are permitted to proceed to their destinations. Local health officers are notified by the Immigration and Naturalization Service of defects that may affect the health of the community.

Personnel

At the close of the fiscal year, 60 inspection officers had been appointed in a civil-service status, largely relieving medical officers of routine inspection and administrative work which formerly consumed a major portion of their time.

Although personnel requirements have been met to date, the division faces a tremendous problem resulting from increased requests for designation of airports of entry, for landing rights at fields that are not airports of entry, and for emergency landing rights at many alternate airports.

The chief of the division continued to serve as Chief of the Office of International Health Relations until August 31, 1945.

Dr. Howard F. Smith was appointed Assistant Surgeon General and assigned to Manila as Chief Public Health Adviser on the staff of the United States High Commissioner, and Chief Public Health Service representative for the Far East area. Dr. Smith also assumed the post of chief quarantine officer of the Philippine Islands. He will continue in this post after the granting of independence.

Inspection Hours

Following a study made during the year, the hours for boarding vessels were standardized at major stations on a 12-hour basis, 7 days a week, instead of the sunrise-to-sunset schedule formerly observed. All stations board vessels during the night when conditions require it.

Aircraft inspections at major airports are performed on a 24-hour schedule.

Procedure Improvements

An improved type of aerosol formula has been developed as a cooperative project with the Department of Agriculture. Pyrethrum and DDT were combined in a very effective formula for the destruction of insects on aircraft.

A Public Health Service officer assigned to the Pan-American Sanitary Bureau has developed an automatic disinsectization device designed to reach all compartments of an airplane during flight. If it proves practical for general use, it will enable the division to standardize and simplify requirements for this procedure.

Some studies have been made of a DDT residue for use in the control of insects on ships. Indications to date are that the substance is relatively effective in this use.

Sodium fluoroacetate, or 1080, has been used at six major stations in an experimental program for control of rats on ships. Preliminary reports indicate that it is very effective and that its use may materially reduce the number of cyanide fumigations of ships. Another rodenticide, called ANTU (from alpha-naphthyl-thiourea), is being evaluated for shipboard use.

Regulations and Publications

Revised Foreign Quarantine Regulations became effective July 1, 1946. Stress has been laid on pre-embarkation immunization and on placing arriving persons under surveillance of local health officers where practicable rather than detaining them under observation.

Revised regulations governing the medical examination of aliens have been drafted. A manual of operations is being prepared to cover detailed quarantine requirements and procedures.

The division chief attended a meeting, in Ottawa, of American consuls in Canada, for the purpose of standardizing and simplifying requirements for entrance of Canadians to the United States.

Facilitation of Air Travel

The assistant chief of the division attended a conference of the Provisional International Civil Aviation Organization in Montreal, at which a set of tentative standards and recommended practices for facilitation of international air transport was prepared.

The division proposed a plan whereby local health officers could perform quarantine inspections of planes, arriving from foreign countries, which may make emergency landings at airports not readily accessible to stations of the Public Health Service. The plan was approved by the conference of State and territorial health officers.

A full-time inspection officer has been placed on duty in Chicago to inspect planes and examine immigrants coming direct from foreign countries, and this service is being extended to Houston, Dallas, and San Antonio, Tex.; New Bedford, Mass.; Syracuse, N. Y.; Newark, N. J.; and West Palm Beach and Tampa, Fla.

Collaboration With Other Governmental Agencies

By agreement with the Public Health Service, the Department of Agriculture has undertaken the disinsectization of planes arriving in Hawaii.

The program of medical examinations and preventive treatment for alien workers imported by the War Manpower Commission and the Department of Agriculture was completed. A total of 45,838 workers was recruited by these agencies during the year.

As the result of easing of security restrictions after the war, the quarantine liaison agreement of the Public Health Service, Army, and Navy was revised in simplified form.

During the period of outbreaks of smallpox in Washington and California, Public Health Service officials conferred with representatives of the Army and Navy, and a strict preventive program was instituted to avoid recurrence of such outbreaks.

An agreement was reached with naval officials regarding inspection and fumigation of decommissioned naval vessels by certain quarantine stations. The program was carried out with no increase in quarantine personnel, and effected a monetary saving of approximately 90 percent over the original Navy estimate.

At the request of General MacArthur a Public Health Service officer was assigned to the Army to serve as quarantine officer for Japan. The division also trained eight Army medical officers for quarantine duty in Japan.

The chief of the division was awarded the Army Commendation Ribbon for assisting in Army quarantine matters and helping to facilitate military traffic abroad.

Radio Pratique

Plans have been made to resume the procedure for quarantine clearance of certain passenger vessels by radio pratique, discontinued during the war, as soon as shipping is better organized. For vessels of the Army and Navy a simplified procedure is being worked out in accordance with the interservice quarantine agreement.

Expert Quarantine Commission

The division chief served as vice chairman of the Expert Quarantine Commission of UNRRA. Several meetings were held, in which yellow fever areas of the world were delineated, studies were instituted for the evaluation of vaccines and vaccination techniques, and other recommendations concerning the practical application of quarantine methods were made to and approved by the Standing Technical Committee on Health.

International Conventions

Pending establishment of world health organization as part of the United Nations, the International Sanitary Convention, 1926, as amended by International Sanitary Convention, 1944, and the International Sanitary Convention for Aerial Navigation, 1933, as amended by International Sanitary Convention for Aerial Navigation, 1944, have been continued in force.

Plague

The port of Tacoma, Wash., which had been declared plague infected in October, 1944, was proclaimed free of plague July 5, 1945.

Property

The Gallops Island Quarantine Station at Boston, Mass., was declared surplus on November 1, 1945, and the Port Townsend, Wash., Quarantine Station on May 14, 1946. Frame buildings erected by the Army on the Miami, Fla., Quarantine Station were obtained for station use. The Gulfport, Miss., Quarantine Station is being restored to active use following its utilization by the Army.

The War Department has agreed to transfer a portion of Fort Armstrong, Hawaii, to the Public Health Service in exchange for the Sand Island Quarantine Station. Legislation is being prepared to exchange a portion of the Naval Reservation at San Diego, Calif., for the present quarantine station, which is desired by the Navy.

An Army surplus vessel of the T type was purchased for use at the Charleston, S. C., Quarantine Station. The vessel has been named the "C. C. Pierce" in honor of the late Dr. Claude C. Pierce of the Public Health Service.

Office of Dietetics

During the 1946 fiscal year, an Office of Dietetics was set up as a separate unit under the chief, Bureau of Medical Services. Responsibilities of this office include general supervision over all dietetic operations carried on by the bureau, and professional supervision over dietetic personnel.

The dietetic consultant heading this office has visited a majority of the hospitals of the Service and is developing recommendations for improved dietetic services. A dietetic internship has been established at the marine hospital at Staten Island, the course functioning in accordance with rules and standards of the American Dietetic Association. Nine appointments were made to this course. One intern completed the work in June 1946, and has been assigned to a marine hospital as staff dietitian.

Six dietitians were given appointments in the Regular Commissioned Corps in July 1945. A total of 30 dietitians was commissioned in the Reserve Corps.

Office of Nursing

On June 30, 1946, there were 1,368 nurse positions in the Bureau of Medical Services. During the year there were 477 resignations, 18 retirements, and 17 discontinuances, a total of 512 separations.

In June 1946, the Civil Service Commission approved the proposal to allocate hospital nurse positions in the professional service. Effective July 1, 1946, most, if not all, staff nurse positions will be placed in professional grade 1. It will be necessary to survey many of the positions in higher grades before reallocation can be effected.

A detailed study of the nursing care and service in one of the marine hospitals is now being conducted preliminary to the in-service staff education program. Results of the study will be utilized as a basis for improved nursing service and care for the patients and for a practical and more efficient distribution of nursing service personnel.

Two nurses have completed a course in advanced administrative psychiatric nursing and are returning to their respective stations under the Division of Mental Hygiene. Six nurses have completed the coures in anesthesiology at the marine hospital, Staten Island. Eighty-seven student nurses have enrolled for affiliation in psychiatric nursing at the Service hospitals in Lexington, Ky., and Fort Worth, Tex. For 6 months of supervised nursing experience, 265 senior cadet nurses have been assigned to marine hospitals. Two nurses have been detailed to assist with a malaria research project, 2 have been assigned for training at the Leprosarium in Carville, La., and 6 have been assigned to the consular service in Europe.

With the establishment of the Division of Nursing in the Office of the Surgeon General on February 1, 1946, this office became a constituent of that division.

Medical Care in Other Agencies

United States Coast Guard

The Public Health Service acts as the medical corps of the Coast Guard. Marine Hospitals furnish the bulk of the hospitalization as well as an appreciable amount of the out-patient treatments required by the Coast Guard personnel and dependents. Dispensaries and small medical relief stations of the Service supply out-patient service to Coast Guard personnel and dependents, and provide through contract hospitals for any in-patient care needed by Coast Guard personnel.

In addition, the Public Health Service details medical and dental officers to serve on Coast Guard vessels and bases. Dental officers of the Service man motorized dental units which travel regularly to Coast Guard stations that are too small to justify the assignment of a dental officer. Physicians have been employed as acting assistant surgeons on a part-time basis at small stations which are remote from marine hospitals and other medical relief stations. These physicians treat Coast Guard personnel and dependents as out-patients and secure hospitalization in contract facilities when needed.

During the period of demobilization, 13 separation centers were established. These centers provided complete physical and dental examinations, including miniature film chest X-rays, for all personnel being separated. Demobilization has been rapid since VJ-day, and the volume of medical care required has accordingly decreased. Statistics on the volume of medical relief furnished the Coast Guard by the United States Public Health Service are shown on tables in the appendix.

On July 1, 1945, 636 Public Health Service officers were detailed to the Coast Guard, including 190 dental officers, 409 medical officers, and 37 nurse officers. On June 30, 1946, this number had dropped to 166, including 56 dental officers, 98 medical officers and 12 nurse officers.

A comprehensive study was inaugurated during June 1946, and will be continued during the present fiscal year to determine the actual needs of the Coast Guard for Public Health Service personnel ashore and afloat. It is expected that medical and dental officers will be required afloat on a considerable number of Coast Guard units engaged in Loran servicing, Bering Sea patrol, ocean weather reporting stations, and ice patrol.

During the fiscal year the furnishing of medical supplies, equipment, and other services to the Coast Guard by the Navy without charge, was discontinued. In view of this fact the Coast Guard will now turn to the Public Health Service as a source for these requirements. At the closing of the fiscal year 1946, a general message was sent to the Coast Guard advising that Coast Guard personnel would be hospitalized in naval hospitals in emergencies only.

During the fiscal year motorized dental station No. 1 was surveyed and removed from service, leaving five in operation.

Prison Medical Services

During the fiscal year 1946, the Public Health Service provided medical and allied service for 27 Federal penal and correctional institutions, with an average total population of about 18,800 inmates. More than 10 percent of the inmate population visited out-patients clinics daily for examinations, immunizations, treatments, and other services.

A clinical study on inmates who voluntarily participated in a malaria research project at the United States Penitentiary, Atlanta, Ga., was completed. The National Institute of Health reported favorable results, and another similar project has been undertaken at the Federal Correctional Institution, Seagoville, Tex.

The Public Health Service was requested to assign a medical officer to the Prison Branch of the Legal Division, United States Group Control Council for Germany to serve as chief of the criminal insane, medical and sanitary sections. The chief medical officer of the Lewisburg Penitentiary was selected for the detail, and served from July to November 1945.

The medical activities continued to suffer from the loss of medical officers, especially psychiatrists, and some routine activities were curtailed. An improvement was noted, however, in the number and type of subordinate trained male employees, many returning to their old positions following release from military service.

There was a definite increase in the number of requests from Federal courts for special physical and psychiatric examinations of persons charged with crimes against the United States.

Special advisory service with respect to the medical program and standards in correctional institutions was rendered to the District of Columbia, the War Department, county jails, Puerto Rico, and the criminal division of the Department of Justice.

Office of Vocational Rehabilitation

On June 30, 1946, six Public Health Service medical officers were on detail to the Office of Vocational Rehabilitation. Their function is the development of physical restoration activities by State vocational rehabilitation agencies and State agencies for the blind which receive Federal grant-in-aid funds. Disabled civilians with employment handicaps are eligible for medical, psychiatric, and surgical care, prosthetic appliances, vocational counseling and training, and placement and follow-up in employment. The organization of the physical restoration phase of the program, first authorized in 1943, has been hampered by lack of qualified administrative personnel experienced in medical care programs. With demobilization, the physical restoration staffs of State agencies increased materially.

The number of medical examinations during the first 9 months of the fiscal year was 36,000 compared with 23,900 for a similar period in the previous year. Psychiatric examinations increased from 500 to 700 during the same period. The number of medical and surgical treatments increased from 1,400 to 3,900. Thirty-eight hundred patients were hospitalized for a total of 53,100 days in the fiscal year 1946, as compared with 1,300 patients for a total of 22,500 days in the fiscal year 1945. Emphasis has been placed on training courses for rehabilitation counselors and on the development of cooperative relationships with public and voluntary health, medical, and social agencies. Emphasis has also been given to the rehabilitation of merchant seamen and persons with psychiatric disabilities, tuberculosis, and epilepsy. An outstanding authority in the field of orthopedics and prosthetic devices was employed part-time to give assistance in this field. Plans for next year include full-time consultants in tuberculosis and ophthalmology.

Employees' Compensation Commission

The Medical Division of the Employees' Compensation Commission provides medical care and other benefits for Federal civil employees who are injured in the performance of official duty or who incur diseases due to conditions of employment. The medical director coordinates the activities of nine Public Health Service officers on detail to the Commission, and, with the approval of the Commissioners, sets policies and procedures for medical care of beneficiaries. The facilities of the United States marine hospitals, Public Health Service dispensaries and medical relief stations, and other Federal medical installations are used wherever possible. Public Health Service officers on detail to the Commission also supervise some 4,000 private physicians who are designated by the Commission to care for injured civil employees in localities where United States medical officers or hospitals are not available.

An average of 30,000 cases involving the furnishing of medical care, hospital services, dental care, prosthetic appliances, and transportation to and from medical installations, is under consideration at all times.

According to recent reports, the frequency rate of disabling injury cases among Federal civil employees is 9.8 per million man-hours worked. During the calendar year 1945, preliminary reports indicate the cost of compensation benefits for all injuries at $13,686,109. Expenditures for medical care during 1945 amounted to $4,581,608.

During the past year, the Commission set up machinery to care for returning civil employees and employees of contractors who had been interned by the Japanese. Arrangements have been made to continue treatment of these evacuees in the vicinity of their homes.

The Commission has cooperated with the War and Navy Departments in various programs regarding correction of industrial health hazards at manufacturing installations of the War and Navy Departments. A special advisory board on silicosis has been established, and extensive surveys have been carried out at the Philadelphia, Washington, and Norfolk Navy Yards. Appropriate preventive measures have been recommended. In cooperation with the hospital division and the National Institute of Health, a research project has been set up to study a large group of employees of the Huntsville Arsenal, Ala., who are said to have developed upper respiratory complications after exposure to low concentrations of mustard gas.

The medical division has continued to work in close cooperation with the various State vocational rehabilitation agencies in assisting physically handicapped ex-employees to obtain training and placement in suitable work.

War Shipping Administration

The wartime medical program developed by the War Shipping Administration to augment services normally available to the Merchant Marine through facilities of the Public Health Service, private operators, and other agencies, passed through three major developmental phases during the 1946 fiscal year. During the early part of the year, the program continued to expand. With VJ-day came a leveling off, followed by successive recisions in which medical activities either were curtailed or transferred to other agencies. The third phase of the program was concerned with the consideration of future trends, especially with the postwar position of medical service for the maritime industry.

At the end of the fiscal year, 25 commissioned officers of the Public Health Service remained on detail to the War Shipping Administration, as compared to 179 in July of 1945.

Medical activities of the recruitment and manning organization were closed December 31, 1945. Two of the seven rest homes jointly operated by this organization and the United Seamen's Service were retained for the balance of the fiscal year as projects of the United Seamen's Service, medical supervision being furnished by the Public Health Service.

During the year, the medical section of the Division of Vessel Operations was concerned chiefly with medical supplies on War Shipping Administration-operated vessels, inspection of sick bays, supervision of purser-pharmacist's mates, and plans for the removal of narcotics and other medical material from ships being retired to the reserve fleet. General agents were advised that they would be expected to assume full responsibility by June 30, 1946, for the purchase of medical supplies and the preemployment examination of crew members not referred to the Public Health Service.

In recognition of the value of the program of preemployment medical examinations of merchant seamen, these activities were gradually absorbed by the hospital division of the Public Health Service and by steamship companies that maintained medical departments.

The Office of the Chief of the Dental Service, War Shipping Administration, was abolished July 14, 1945. The dental program, however, continued at all major training stations, training ships, and port medical representatives' offices.

The Office of the Chief of the Sanitary Engineering Service was terminated on the last day of the fiscal year. The Division of Sanitary Engineering, Public Health Service, acted throughout the year as agent for the War Shipping Administration in providing a sanitation inspection service for its vessels. The insect control program for ships, developed during this fiscal year, ranks high among the new developments of this service.

Early in 1946, the 36 Maritime Service Hospital Corps officers who had been trained in quarantine procedures by the Public Health Service were transferred to civil-service status with the Service.

The chief of the nutritional service, Office of the Medical Director, served in the Food Control Division until January 1946, when this post was abolished. Activities included assistance in developing a standard curriculum for stewards', cooks', and bakers' up-grade schools, and the preparation of manuals for galley personnel.

The psychobiological service conducted studies on characteristics of individual applicants for crew membership. The medical statistical service analyzed results of signing-on and annual examinations, and operated a central medical register which was valuable in those cases requiring involved technical procedures, laboratory tests, or prolonged observation preliminary to diagnosis.

A central file for seamen's individual records was established, incorporating all War Shipping Administration, Army, and Navy medical records of seamen. There are records of more than 50,000 treatments given merchant seamen in Army facilities overseas in this file.

Three books released for publication during the year were, "U. S.

Maritime Service Hospital Corps School Manual," a revised edition of the "Ship's Medicine Chest and First Aid at Sea," and "Psychobiological Program of the War Shipping Administration."

By the end of the year, all field activities of the office of the medical director had been discontinued except training division medical activities.

Labor Branch, Department of Agriculture

The Health Services Division of the labor branch is responsible for planning, developing, and executing a broad program to protect the health of migrant agricultural workers, both domestic and foreign, eligible for such services under the legislative authority given the labor branch. The program is largely carried out through six nonprofit corporations known as Agricultural Workers' Health Associations, through which services are furnished on a contractual basis. Whenever feasible, preventive measures are carried out in collaboration with State and local health departments. Twenty Public Health Service officers were on detail to this program at the end of the fiscal year.

The health services program is conducted through clinics operated wherever farm workers are concentrated. Regular inspections are made of shelter and feeding operations, water supplies, and facilities for waste disposal. The prevention of work-connected accidents receives particular attention.

During the fiscal year ended June 30, 1946, the labor branch imported over 40,000 foreign workers. These included approximately 30,000 Mexicans, 6,000 Jamaicans, 3,000 Barbadians, and 2,000 Bahamans. In order to comply with quarantine regulations and to select workers physically fit for agricultural work, careful pretransportation physical examinations and certain preventive measures were included as part of the recruitment procedure in the countries of origin. Each worker accepted for transportation was given a complete physical examination, a smallpox vaccination, and two injections of typhoid vaccine.

In the immediate postwar reconversion period, there was noted a marked increase in the number of domestic migratory farm workers resulting from cut-backs in war industries. Increased attention was paid to meeting the health and medical care needs of migratory workers and their families housed in the farm labor supply centers operated by the labor branch.

Office of Indian Affairs

The health branch of the Office of Indian Affairs, Department of the Interior, operates 69 hospitals and sanatoria in the United States and 7 in Alaska, with a total bed capacity of 4,080. In addition, 14 school infirmaries are maintained in connection with the larger

Indian Service boarding schools. The Indian Service also has contracts with a number of State, county, and private hospitals. During the year 921,123 out-patient treatments were given in hospital and field dispensaries, and 39,582 persons were admitted to hospitals for a total of 820,267 in-patient days.

The Indian Service offers its beneficiaries a health service which includes hospital and sanatorium services, medical attention in hospitals and dispensaries, dental care, public health nursing, disease and accident prevention, health education, sanitation, and rehabilitation. Hospital care for the mentally ill is provided under contract with the various States and with the Public Health Service.

Sixteen Public Health Service officers were on duty with the Office of Indian Affairs at the close of the year. The serious personnel shortage of the war years continued, with but slight relief toward the end of the year. Nevertheless, the hospitals have been well maintained and contrive to furnish a high grade of service.

An evaluation study of the Indian Service BCG vaccination program was completed by the Public Health Service and reported in the June 7, 1946, issue of Public Health Reports. On the basis of the report, plans are being made to renew vaccination of Indians on reservations with a high tuberculosis morbidity.

During the year special studies were conducted in dental diseases, and a study of tooth structure was undertaken at the Pima Reservation. At various schools the topical application of fluoride solution to teeth was practiced in an effort to reduce dental caries. Modern dental clinics with complete equipment are being installed in the larger hospitals of the Indian Service.

Sanitary engineers of the Public Health Service continued to furnish consultative service to the Indian Service. Routine sanitary inspections of dairies were conducted, and institutes for food handlers were held. Mobile public health laboratories of the Public Health Service were also used on certain reservations.

Arrangements were also made with the Office of Malaria Control in War Areas of the Public Health Service for demonstrations of the use of DDT in insect control. These demonstrations are continuing and much progress is being made.

The Indian Service participated in the program of training senior cadets of the Cadet Nurse Corps during the year and a total of 136 completed their experience.

In Alaska, where the average tuberculosis mortality rate among the native population for a 7-year period was 688 per 100,000, plans have been made for a comprehensive control program. This will include a tuberculosis control unit consisting of a medical officer, a public health nurse, a technician, a clerk, and mobile X-ray equipment to conduct the case-finding surveys in the Territory.

BUREAU OF STATE SERVICES

The Bureau of State Services coordinates the programs administered by the Public Health Service in cooperation with State and territorial health departments. Through the administration of grants-in-aid, and through cooperative work, upon request, the Bureau assists the States in controlling disease and improving general health.

The Bureau is divided into an Administrative Office, the Divisions of States Relations, Venereal Disease, Industrial Hygiene, and Tuberculosis Control, and the Office of Public Health Nursing. Although district directors are directly responsible to the Surgeon General, district offices are administered by the Bureau of State Services.

Administrative Office

The Office of Administrative Management is charged with the direction and coordination of the Bureau's administrative activities; analysis of organization and procedures and preparation of directives on administrative adjustments; development of policy and methods for administration of grants-in-aid to States; budget and fiscal control of Bureau appropriations; and direction and coordination of the purchase of supplies, equipment, and services.

During the year considerable progress was made in reorganizing the work within several divisions and offices to meet situations arising from expanded activities in some fields, reduction in others, and from personnel shortage. Two hundred and fifty allotments were maintained to control the fiscal accounts covering the nine approprations through which funds were made available to the Bureau. These appropriations totaled $49,110,000. In addition, administrative accounts were maintained which covered the relationships between the units of the Bureau of State Services and the approximately 20 other Government agencies with which cooperative governmental activities were being carried on. The administrative office also handled budget affairs of the district offices.

Allotments and payments to States under the grant program authorized by section 314 of the Public Health Service Act totaled $24,891,001.73. Of this amount, $8,748,383.58 was used for venereal disease control, $5,178,964.50 for tuberculosis control, and $10,963,653.65 for general health work. Distribution of these amounts by States is shown in table 23 of the appendix.

In cooperation with the committee on business management of the Association of State and Territorial Health Officers, the regulations governing grants were revised. Marked simplification of requirements and procedures with respect to budgets and reports was accomplished.

Field administrative analyses were concerned with business management and procedure, State plans, budgets, audits, personnel administration under State and local merit systems, and activity reporting at State, county, and city levels. General health, venereal disease, and tuberculosis control grant-in-aid funds were audited in 19 States covering 35 audit years and involving total expenditures of $15,207,617.49. Audits were also made of 17 cancer research grants covering total expenditures of $43,319.26. Reviews were made of audit reports covering 27 audit years of grants to States and 13 cancer research grants.

Merit system rules and regulations were extensively revised in many State agencies. Revised rules and amendments were reviewed for conformity with merit system policies. Most State health departments, in the past year, have also made major revisions in classification and compensation plans. During the year staff members gave consultative service on personnel administration in 26 health departments in 7 districts.

Two reports were developed by the records and reports unit for the purpose of reducing the volume of information required of State health departments. This was accomplished through the use of modified check lists. Prior to this year, only 37 States had adopted this reporting system; it has now become an official requirement of the Public Health Service. Reviewing, processing, and analyzing this information was an outstanding activity during the year.

Due to the difficulties encountered in securing typing help in the Washington area, a field clerical office was opened in Richmond, Va., on April 24, 1945. The personnel situation in Washington having become somewhat better, this field office was closed on March 29, 1946.

Office of Public Health Nursing

The Office of Public Health Nursing has general supervision over all nursing operations carried on by the several divisions of the Bureau of State Services and has professional supervision of all nurses employed through that Bureau. This office is also responsible for advising the Chief of the Bureau of State Services, the district directors and the several chiefs concerning the programs which involve nursing and for the recruitment, selection, and assignment of nursing personnel in accordance with the needs of the districts and special divisions.

On June 30, 1946, a total of 282 nurses and 25 nurse's assistants were on duty with the Bureau of State Services. One hundred and seventy-seven nurses and 20 nurse's assistants were assigned to the Venereal Disease Division, most of them serving in the rapid treatment hospitals. Forty were assigned to the Tuberculosis Control Division and 5 to the Industrial Hygiene Division. Six nurses were assigned to States Relations Division for nutrition studies and 1 for the field training project in Savannah. Ten are on duty in 8 district offices. Federal Public Housing Authority infirmaries, Boulder City Hospital, Surplus Property activities, and the Chicago-Cook County survey utilized an additional 20 nurses and 5 nurse's assistants.

Twenty-one Regular Corps nurses are on special assignments to State or local health departments. These assignments are made upon the request of the State Health Department and upon recommendation of the district directors. In July 1945, the first nurse officers in the Regular Commissioned Corps were called to active duty. Of the 282 nurses on duty June 20, 1946, 38 are regular commissioned officers and 60 are reserve officers.

On July 1, 1945, 385 nurses and 94 nurse's assistants were employed by the Bureau of State Services. During the year there were 367 resignations or transfers to other bureaus, and 195 new appointments. All of the 77 nurses employed on health and sanitation activities on July 1, 1945, were released or assigned to other work by January 1, 1946.

Annual Census of Public Health Nursing

The total number of nurses employed for public health work on January 1, 1946, was approximately the same as for 1945. Included for the first time in this total are 84 public health nurses employed by schools of nursing to integrate the social and health aspects in the basic curriculum.

Although 28 States and Territories showed decreases in the number of nurses employed, these losses were almost perfectly balanced by the gains in other States. The number of supervisors increased from 2,032 to 2,161, a gain of 129. On the other hand, the staff nurses decreased by 343, from 18,320 to 17,977. The proportion of nurses per supervisor in the over-all view, therefore, was reduced to eight, as against nine in 1945.

The percentage of nurses who had completed 1 year's study in an approved public health nursing program of study shows a slight gain, from 26.6 to 28.0 percent. The supervising group showed a gain of 3.4 percent, whereas the staff nurses showed a loss of 0.1 percent. The decrease in the percentage of qualified staff nurses is no doubt due to the necessity of filling vacancies with the type of nurses available.

The number of counties having no nurses engaged in full-time public health work in rural areas increased from 909 in 1945 to 1,133 in 1946. The number of incorporated cities and towns (population 10,000 or more) having no nurses engaged in full-time public health work also increased from 9 in 1945 to 23 in 1946. Many of these counties and cities reported that funds had been budgeted for nursing services but personnel was not available. (Table 24, appendix.)

Assistance to District Offices

All of the district offices except districts 5 and 9 were visited by the central office nursing consultants during the year. Three- or four-day conferences were held with the State nursing directors of each district. Usually the nursing divisions of the Children's Bureau and the universities offering public health programs of study were also represented at these conferences. The State health departments find conferences of this type very helpful and they are valuable to the Office as a device for learning about and evaluating the nursing program in each State.

A 2-weeks' conference for all of the nursing consultants in the district and division offices was held last December to discuss the new and pending programs of the Public Health Service, to outline plans for nursing participation in these programs and to plan for the readjustment of public health nursing from a war to a peacetime program.

Through arrangements made by the district offices, visits were made to 12 State and local health agencies, usually to participate in meetings or special educational conferences. Inasmuch as Alaska had no resident district consultant, the chief of the office spent 2 weeks with the territorial and local health departments.

Upon request of district 7, one of the central office nursing consultants made a study of a local service in Minnesota which is used as a field practice center by the State health department and the University of Minnesota School of Public Health. This city-county unit is one in which an attempt is being made to include a bedside nursing service as a part of the total public health nursing program.

Assistance to Other Divisions of Bureau of State Services

In order to coordinate the nursing work of the several divisions of the Bureau of State Services, monthly staff conferences have been held for the public health nursing consultants. An exchanges of itineraries has been arranged to avoid duplication of visits Reports of field visits are circulated. While the special consultants are on field trips, nursing problems within the several divisions are frequently referred to the office. Since there was a vacancy in the position of chief nursing consultant for the Venereal Disease Division during

May and June, all of the venereal disease nursing problems were handled by a representative of the office.

Assistance to Other Agencies and Professional Associations

Considerable time of the chief has been devoted to the work of the National Nursing Planning Committee. This committee represents all of the six national nursing organizations and its functions include planning for all fields of nursing. A comprehensive program for action in the field of nursing has been published. Many of the plans require additional research. Funds or services have been secured from a number of large foundations for further study and research on such problems as the organization of community nursing councils, the economic status of nurses, and joint accreditation of nurse education facilities. An intensive study of nursing schools is under consideration at the present time.

A representative of this office has served on the American Public Health Association Committee on Professional Education and considerable time has been devoted to the work of a subcommittee which is preparing standards and suggestions for the operation of field experience centers. Since this office also has membership on a similar committee in the National Organization for Public Health Nursing, the recommendations of the two committees can be coordinated. Representatives serve on the governing boards of the American Nurses' Association, the National Organization for Public Health Nursing, the American Public Health Association, the National Nursing Council and the American Journal of Nursing. In addition, representatives serve on numerous national committees and participate actively in the work of those committees. One of the central office consultants has worked jointly with the National Organization for Public Health Nursing on the preparation of plans and studies sponsored by that agency.

Activities of the Special Nursing Consultants

The programs of the venereal disease, tuberculosis control, and industrial hygiene nursing consultants have included similar activities, each devoted to her particular specialty. Detailed reports of the activities of each are included in the reports from each division.

District Public Health Nursing Activities

The nursing programs of the district offices have shown a change in activity since the cessation of hostilities. Major emphasis has been placed on assisting States in securing better prepared public health nurses. This has involved: (1) Promotion and assistance in the conduct of institutes on the integration of social and health aspects of nursing in the basic curriculum; (2) assistance to universities in arranging postgraduate nursing education in specialized subjects, by conducting workshops, by teaching in summer schools, by surveying field experience centers and assisting in the development of sound programs for public health nursing field training and by serving on the advisory committees of the universities; and (3) assistance to the States in the preparation for and conduct of staff education programs for supervisors.

Emphasis has also been placed on the coordination of all public health nursing services by surveying communities (upon request of the State health department) with a view toward amalgamation of existing agencies or joint planning of the community nursing programs.

Consultation on the interpretation of the nursing section of the annual plan has helped to clarify the place of nursing in the total State health plan.

With additional nursing consultants available from the central office for the specialties such as tuberculosis, venereal disease, and industrial hygiene, the district nursing consultants have participated in those programs largely by stimulating requests for the services of special consultants, acquainting the special consultant with the problems peculiar to the area requesting her services, and following up the recommendations made by the special consultant.

Since the number of nurses available for employment in rapid treatment centers (especially in the South) has decreased, the district nursing consultants have been required to recruit, process applications, orient, and assign nurses who have been secured locally.

In most of the districts, the Federal Public Housing Authority infirmary projects were closed soon after the cessation of hostilities. Hence a diminishing amount of the nursing consultants' time was required for this service.

States Relations Division

The States Relations Division has aided the States to develop increasingly effective public health organizations through the application of grants-in-aid under section (*c*) of the Public Health Service Act of 1944.

Regulation appropriations in 1946 included: Assistance to States, general, $11,467,000; health and sanitation, regular appropriation, $2,615,000, first rescission, $392,568, second rescission, $125,000; control of malaria and disease of tropical origin, $10,897,000, rescission, $1,862,502; control of communicable diseases, $1,040,000; Philippine Islands public health services, $1,000,000; postwar planning, $270,800; traveling expenses, $259,995; and printing and binding, $4,000.

The Office of Surplus Property Utilization received $5,011.35.

The States Relations Division also received $213,800 by transfer from the Federal Public Housing Authority for the operation of infirmaries at war dormitory projects. All infirmaries have now been closed to bed-patient care.

A fund of $80,256.74 for the operation of the Boulder City hospital was transferred from the Bureau of Reclamation of the Department of the Interior to the States Relations Division. This activity is described under the Hospital Facilities Section.

The assignment of liaison officers to the nine Army Service Commands for the coordination of civilian and military health functions was terminated at the close of the fiscal year.

Conferences

The forty-fourth annual conference of the Public Health Service with the State and Territorial health officers was held in Washington, D. C., April 8–11. Reports on the future programs of various health committees were heard, and motions to adopt them were passed.

The semiannual conference of the Surgeon General with the district directors was held in Bethesda, Md., April 9–14. Activities and problems in various public health fields were discussed in relation to the administration of the district offices.

Assistance to States, General

During 1946 the grant-in-aid program operated, for the first time, under the authorization of section 314 of the Public Health Service Act of 1944. Because this act makes no provision for carrying over the unpaid balances for reallocation in the ensuing year, the amount available for allotment in 1946 was only $11,000,000, as against $11,614,380 in 1945. However, payment made was $10,963,653, or $50,163 more than in 1945. For the first time, the Virgin Islands participated in these grants.

The grant-in-aid program for health services has continued to serve as a stimulus for greater State appropriations. Increased appropriations totaling in excess of $8,000,000 were reported in 45 States for 1946, and it appears that this amount will be surpassed in 1947.

The return of medical and nursing personnel to public health positions has not occurred to the degree desired or expected, and the development of new local health organizations has been retarded. In Florida, under a State appropriation, 4 district units were organized to cover the 25 counties which lacked full-time health services. Other States, however, have been less fortunate in securing personnel, and although complete reports have not been received, it is believed that there has been little change since the previous annual report.

Emergency Health and Sanitation

On June 30, 1946, the Emergency Health and Sanitation Program was terminated. This program provided a mobile corps of skilled health personnel for extra cantonment and war industrial areas, to maintain health standards in the face of crowded war conditions and the absence of local health personnel serving in the armed forces.

During the year, the milk and food sanitation program continued with the following activities: Preparation and revision of standards for State and local control of milk, frozen desserts, and restaurants; advisory service to States through field and office consultation; supervision of milk and food handling on interstate carriers; preparation of educational and training materials, cooperation with other agencies, and compilation of disease outbreak statistics. These activities are discussed in greater detail in the report of the Sanitary Engineering Division.

Industrial hygiene research and investigation was carried on in war industries, and many health hazards were remedied.

A special program was continued for the control of plague in areas adjoining military establishments in the Hawaiian Islands.

Administration of the Liberian Mission was transferred to the newly established Office of International Health Relations in the Office of the Surgeon General.

The States Relations Division has assigned personnel to the following agencies for varying periods during the past year: Office of Strategic Services; Farm Security Administration; Office of Inter-American Affairs; Office of Labor; Office of War Information; Public Roads Administration, Pan-American Highway; Office of Scientific Research and Development; and War Department, Strategic Bombing Survey.

Expenditures

The funds available for health and sanitation activities for the fiscal year 1946 totalled $2,097,432. These funds were expended as follows: Administration, $514,208; assistance to States, $533,558; industrial hygiene, $429,808, including research, $175,582, and investigations, $254,226; plague, Hawaii, $34,745; milk and food sanitation, $88,183; and Mission to Liberia, $312,837.

The following transfers were made: Sanitary Engineering Division, $119,598; Public Health Methods, $61,902; and National Institute of Health, $2,593.

Statistical Section

The statistical section has been reorganized and expanded to function as the statistical service section for the States Relations Division.

During the year an analysis was made of the training sponsored by State health departments under title VI of the Federal Social Security Act and the Federal Venereal Disease Control Act. A study was also made of trends in dentist-population ratios.

Projects in progress include: (1) a study of methods for the allocation of grants-in-aid to local health jurisdictions; (2) investigation of trends in the distribution of specialists in counties with differing socioeconomic characteristics; (3) analysis of the distribution of general practitioners and specialists in 1940, and estimates of the need for such personnel; (4) collaboration with the diabetes demonstration study section in a statistical investigation of diabetes death rates; and (5) tabulations of the number, type, control, bed capacity, admissions, and average daily census of hospitals in each county in 1945.

Interstate Spread of Communicable Diseases

The prevention of insanitary conditions on interstate carriers constitutes an important responsibility of the sanitary engineering personnel assigned to district offices. In the discharge of this responsibility, State health department staffs cooperate.

Air line and railroad sanitation activities included inspection of food and water, recommendations on proper equipment, and the education of food handlers. A limited amount of experimental work was carried out on the temperature and storage of food on aircraft in order to evaluate various types of equipment. Efforts to interest air line companies in the installation of better methods of sanitation met with success, and work has been started on the development of an air line sanitation manual.

Plague Suppressive Measures

During the year, for the first time, plague was diagnosed in rodents in Nebraska and Kansas and also was found among field rodents in Bannock County, Idaho, and Medicine Bow National Forest, Laramie County, Wyo. The health department of California again reported plague in field rodents collected in Alpine, Kern, Placer, Santa Barbara, San Benito, Santa Clara, San Luis Obispo, and Ventura Counties, and infected rodents were again found in certain districts on the Island of Hawaii.

Assistance was extended to several west coast cities in the organization and conduct of plague control measures. As a result of this aid, local authorities in all the principal ports of the Pacific coast are now conducting rat-control programs.

Upon request, surveys were also made of military reservations around San Francisco and in the interior, and assistance was given in rodent control.

Investigations were continued on the practical application of DDT, ANTU, and 1080 as control measures for rodents and their parasites. ANTU was found to be not as effective as 1080 in the destruction of rats, and the application of 1080 to grain baits was found to be effective in the destruction of ground squirrels. Streptomycin has been found to be of definite value in curing experimental plague in animals.

After having been packed among jute bags and subject to conditions similar to those of transit from India in a ship's hold, previously infected fleas have transmitted the disease to rodents. While these investigations indicate that plague might be introduced into Pacific coast ports by such means, it seems that the presence of all of the circumstances necessary for the transfer of plague from India to the United States can hardly occur.

Office of Malaria Control in War Areas

During the past year, the Office of Malaria Control in War Areas gradually reverted to a peacetime status. With the advent of VJ-day a great majority of the war area projects (145 out of 192) were terminated. Entomological evaluations of the original MCWA program showed that satisfactory malaria mosquito control resulted from the use of larvicidal methods in 84 percent of 432 zones, while highly significant reductions in vector density were obtained in the remaining 16 percent of the Zones. Potentially hazardous areas were kept under entomological surveillance and plans were made to undertake control at once if warranted.

Meanwhile, of the millions of servicemen who were being demobilized and returned to their homes, many were known to be carriers of malaria as well as other tropical diseases. To meet this potential danger, MCWA activities were expanded in its Extended Malaria Control Program which was begun in 1945.

This program was based on very favorable results obtained with DDT, both as a larvicide and an insecticide. DDT proved more economical than any other of the previously used larvicides and, in addition, is effective months after having been sprayed on walls and ceilings. The program also included the intensive training of professional personnel in the diagnosis of tropical diseases and control methods, original research, and an extensive campaign for public education.

DDT residual spraying.—During the fiscal year 1946, approximately 935,000 DDT residual sprayings were completed in 400,000 homes located in 260 counties in 13 States. Inspections made 1 to 5 months after spraying in 14,000 of these houses showed that 97.2 percent of them contained no mosquitoes. The results of over 30,000 precipitin tests of engorged mosquitoes showed that residual spray was effective in killing mosquitoes which had fed on humans. These data are believed to be highly significant as an indication that DDT spraying decreased the hazard of malaria transmission. Local participation in the cost of malaria control operations has increased to over 10 percent of the total cost.

Impounded water.—By agreement with the War Department, malaria survey reports are made on impoundments at the request of the United States Engineer District. During the 1946 fiscal year, 120 requests were received for surveys in 34 States. Eighty-four reports on these and previous requests have been submitted and field work has been completed on 40 others.

Aedes aegypti.—*The Aedes aegypti* mosquito control activities continued during the year on a diminishing scale. The 15 remaining projects were integrated into the general sanitation program of local health departments, which tends to assure the continuation of this work as a regular activity. At least 50 percent of local personnel participation is required for the continuation of projects.

Typhus fever control.—Typhus control was transferred to the Office of Malaria Control in War Areas in July 1945. During the year, 113 projects were undertaken, covering 138 counties in the 9 States which reported typhus. DDT residual dusting for rat ectoparasite control was carried on in 116 counties (260,000 premises). Ratproofing was carried on in 55 counties (15,000 premises). Where local participation financed it, rat poisoning became an additional project. State and local participation amounted to 62 percent of the total cost of typhus control.

On a number of projects, it was found possible to incorporate DDT dusting with sanitation inspection. A total of 750,000 premise inspections were made during the year.

To determine the effectiveness of DDT dusting in controlling rat ectoparasites, 3,397 rats from 9 States were examined prior to premise dusting, and 2,877 after dusting. The tropical rat flea, *X. cheopis*, was reduced 85 percent as a result of dusting; all fleas were reduced 77 percent; mites, 66 percent; and lice, 7 percent. Tests of blood from 3,130 rats show a reduction of 40 percent in typhus infection in DDT-dusted areas.

Training.—MCWA has established a training program and a public and professional relations program, both of which operate through State and local health departments, universities, and medical schools.

During the year, the In-Service Training Section conducted 15 formal training courses with a total attendance of 267 trainees. The courses included malaria control, typhus control, and orientation. In addition, training personnel participated in three decentralized typhus-control courses in the East, Southeast and Midwest. A 3-week course in malaria control on impounded water was conducted for 36 people from the United States Corps of Engineers.

Internship training was established July 1, 1945, at Savannah, Ga. A 3-month training course was developed for physicians, nurses, sanitary engineers, sanitarians, veterinarians, and nutritionists. During the year, 60 students completed the course, the majority of whom came from State and local health departments and had had no training in schools of public health.

In addition to manuals, programs, schedules, and other training aids provided for the students, similar materials were developed for health educators and record analysts, and training is now available for advanced workers.

When sufficient training material has been developed and additional instructors have been trained, members of the staff will be sent to other States to establish similar training programs.

During the past year, three 6-week courses for technicians in the laboratory diagnosis of parasitic diseases have been given to 60 students from the Public Health Service, State and local health departments, and nonprofit institutions.

An extension service has been established, which consists of sending sets of previously diagnosed slides each month to State laboratories for practice examination and identification. At present, approximately 550 individuals in 153 laboratories in 48 States and the District of Columbia, are utilizing this service.

During the year, the Training Aids Section produced and released 15 motion pictures and 26 film strips. Work was also begun and partially completed on nine other motion pictures and 21 film strips.

The section also produced and exhibited three scientific displays at major scientific meetings.

Five field bulletins were issued during the year, containing statistics of operations and articles of informative and semitechnical nature concerning program operations. Three handbooks on the use of DDT were published: DDT for Control of Murine Typhus Fever, DDT Residual Spray Operations, and DDT for Control of Household Pests. The latter was subsequently issued in large quantities by the Government Printing Office under the title, DDT for Control of Household Insects Affecting Health. Other handbooks prepared or revised during the year were: Drainage Maintenance, That Drainage Job, Identification of Female Anophelines of the United States, Larviciding, Schistosomiasis, So You've Had Malaria, and Entomological Field Handbook.

Personnel from TVA and MCWA jointly prepared a manual entitled, Malaria Control in Impounded Water.

Nearly 2,000,000 pieces of literature were sent by MCWA to State and district offices during the year to be used in public relations and lay education work. Topics included malaria, dengue, yellow fever, and DDT spraying.

Investigation and research.—The program of operational research at the Henry Rose Carter Memorial Laboratory in Savannah, Ga., was continued. Techniques and equipment were developed for applying DDT residual spray, for insect premise sanitation work, and for DDT and other insecticide dusting on typhus fever vector control programs. Chemical investigations into the penetration of DDT solvents into wood surfaces were carried out. Tests were run on a number of different materials used in building houses and ships to determine ratproofability. DDT was investigated as a mosquito larvicide, and its effect on fish and other aquatic organisms studied.

In the diagnostic and training laboratory, 9,861 survey slides were examined for malaria parasites, and fecal examinations were made on 450 children from a church clinic in Atlanta. Studies were started to determine the degree of hookworm infection in a rural population in south Georgia. Diagnostic services were rendered to State and local health department laboratories and to practicing physicians. Field investigations were carried out, in cooperation with the National Institute of Health, during an outbreak of amoebic dysentery in an Alabama institution. Studies were also conducted to evaluate and improve laboratory techniques in the diagnosis of parasitic diseases.

On April 1, the diagnostic and training laboratory took over the rabies research laboratory of the Rockefeller Foundation in Montgomery, Ala. Studies of complement fixation tests for typhus in rats and host-preference serology of mosquitoes were begun. The typhus studies were later extended to include human sera obtained from city and county surveys to determine the past incidence of typhus.

Several activities of a cooperative nature between Malaria Control in War Areas and the National Institute of Health were carried on during the past year at Memphis, Tenn. Mosquito production was successfully controlled, in an area of 24 square miles, with a 2-percent solution of DDT in oil applied at the rate of 6.5 gallons per acre at 10-day intervals. A 40-percent reduction in over-all cost of larviciding was thus accomplished. Effective mosquito production control and an 80-percent reduction in larviciding costs was obtained under unusually difficult contact conditions by applying a 2-percent solution of DDT in oil at 1,000-foot intervals in a large drainage ditch, at the rate of 6 gallons per acre at 10-day intervals. Field experiments showed that a single application of DDT residual spray in inhabited houses controlled mosquitoes for 17 weeks. As part of the MCWA malaria incidence survey, 13,812 thick blood films from Southeastern United States and Puerto Rico were examined, and technicians were trained in the thick film method.

Another of these cooperative studies was made at Manning, S. C., to determine the infectiousness of native Negro cases of malaria to native mosquitoes. Also, 14 species of native mosquitoes were allowed to feed on a patient with *Wuchereria bancrofti* from the French Society Islands to determine their ability to transmit this disease.

All rat-infested premises in two counties of Southern Georgia were treated with a 10-percent DDT dust. In these counties, as well as in two additional check counties (where no typhus control measures were taken), an effort has been made to determine the true incidence of rodent and human typhus before and after dusting.

In South Carolina, tests were made to determine the reduction of malaria incidence through the use of DDT residual sprays.

Flies have been suspected of being associated with the unusually high enteric infection rates in certain parts of Southwestern United States. Tests are now being run to determine the efficacy of fly control as a means of reducing these diseases.

Veterinary Public Health

The Veterinary Public Health Program is concerned with the control of approximately 40 animal diseases communicable to man. The most important of these are anthrax, brucellosis, encephalitis, erysipelas, psittacosis, and related atypical pneumonias, rabies, salmonellosis, and trichinosis.

An increased awareness of the incidence of animal diseases transmissible to man has resulted in the institution and expansion of veterinary public health programs in 3 States. Three more have made budgetary provisions for such programs, and 13 others have recognized the need.

A course for veterinarians was established under the training division. Discussions have been carried on with the Harvard School of Public Health in order to develop a public health curriculum for veterinarians.

Plans were made for a brucellosis control demonstration in Indiana in cooperation with the State health department, Purdue University, the United States Department of Agriculture, and the State veterinarian, and also for a similar study of rabies control methods.

Dental Section

Forty-four States, Alaska, Puerto Rico, and the Virgin Islands carried on dental health programs during the year. The funds available through grants-in-aid amounted to $144,386.64, and funds from all sources amounted to $1,024,246.61. Although four new State dental divisions were established during the year, several States did not have full-time dental directors because of a shortage of trained personnel. Dental officers assigned to four districts served as special consultants in State programs.

The fluorination of the communal water supply of Grand Rapids, Mich., was begun in January 1945, in collaboration with the Dental Section of the National Institute of Health. This project includes biological, bacteriological, and dental studies on the effect of using water which has been adjusted to contain one part per million of fluorine for drinking purposes.

The third year of study on the caries-inhibiting effects of topical fluorides on the teeth of approximately 300 Minnesota children has been completed. Results indicate that during the 3-year period following treatment, 36.7 less initial caries attack occurred in the fluoride treated than in the untreated teeth of this group of children.

The dental examination data obtained 2 years after the topical fluoride treatment of the teeth of 4,000 Rochester, Minn., children is now being processed. On December 5, 1945, a similar demonstration involving 2,500 children was begun in Troy, Ohio, in cooperation with the Ohio State Department of Health. Other data now available for analysis are the dental examination records of 160 children of Saint Aloysius Orphange, Providence, R. I., who received applications of a fluoride solution to the teeth in January 1945 and were reexamined 1 year after treatment.

The dental care demonstration was begun December 1945 in Woonsocket, R. I. Through clinics established in the schools, dental services are made available to the children in the elementary and junior high grades. Only about 15 percent of the children present evidence of having had previous dental care, exclusive of extractions. About 90 percent of the eligible children submit requests for dental care. Through providing two complete dental units for each dentist, auxiliary personnel, and the effective utilization of auxiliary aids, the productivity and efficiency of the dental clinicians has been increased.

The dental programs of Nicollet and Sibley Counties, Minn., set up on a demonstration basis in cooperation with the Minnesota Department of Health, have been in operation for 5 years.

Preliminary analysis of the data indicates an appreciable reduction of tooth loss through the provision of timely dental care for school children.

A sanitary engineer was assigned to the dental section for the purpose of studying methods of fluorination and defluorination of communal water supplies. Practical, simplified methods have been formulated and plans for setting up several demonstrations concerned with defluorination are being completed.

A dental officer was assigned to the Indian Service to conduct a special dental study concerned with the relationship of jawbone and tooth patterns to dental disease.

Nutrition Section

The nutrition demonstration program was initiated during the fiscal year 1946 for the purposes of (1) collecting information on the prevalence of deficiency disease in various areas of the United States, (2) developing and applying methods to be used by health departments for assessing and improving human nutrition, (3) applying basic research regarding etiology and therapeusis of deficiency disease in the field, and (4) conducting demonstration projects. These activities have as their primary objective the assistance of health agencies in the organization and development of nutrition programs.

A newer and more comprehensive knowledge of the specific signs and symptoms of the several deficiency diseases has made it possible for well-informed physicians to diagnose the presence of deficiency diseases in their early stages. A similar increment in the knowledge of blood chemistry has made the biochemical assay of blood vitamin levels a practical laboratory procedure. By stimulating the early diagnosis of deficiency diseases by making possible better physical examinations and providing practical laboratory tests, the nutrition demonstrations are playing a very important role in unmasking these previously hidden deficiency states.

Appropriations during the first year have permitted the organization of four field units. After a period of standardization and training, units were assigned to the Southeastern States, Michigan, and Maryland. Steps have been taken to locate a fourth unit in the Northeast.

Heart Disease Demonstration Project

This project is located at Temple University Hospital and Medical School, Philadelphia, Pa. Its primary objective is to set up mass survey techniques for discovering persons who are likely to develop circulatory disorders, as well as persons actually suffering from them but showing no symptoms which can be recognized by present methods of examination.

The secondary objective is to develop methods for earlier or more conclusive diagnosis in individuals with a known or suspected cardiac abnormality.

The foremost answer to these objectives, so far, has been the development of a new tool, the electrokymograph, an apparatus for recording the motions of individual chambers of the heart and of the great blood vessels.

Each chamber of the heart has its own characteristic motion, and this motion is typically altered in the presence of cardiovascular disease.

Two other adaptations of this device, which show excellent physiological promise, record blood volume changes in the fingers and toes synchronously with the heart beat, and the movements of the diaphragm. This device offers a real opportunity for the study and diagnosis of peripheral vascular diseases through observation of the blood volume changes in the extremities.

Diabetes Control Demonstrations

The importance of diabetes mellitus as a public health problem has become increasingly evident as a result of its rise from twenty-seventh to eighth place as a cause of death since 1900. Estimates of the number of diabetics in this country vary between 675,000 and 1,000,000, with at least 50,000 new cases each year.

Early diagnosis followed by the adequate medical care and education and orientation of the patient with regard to his revised mode of living will in most cases arrest progress of the disease and reduce the occurrence of severe complications in the majority of cases.

A medical officer was assigned to one of the leading diabetic clinics in New England for the purpose of making preliminary observations on the clinical procedures and diagnostic criteria and how they may be adapted to routine public health practice. Mortality data are being analyzed to define the diabetes problem in respect to age, sex, race, occupation, geographic location, and other related factors.

Two additional medical officers are receiving training in preparation for assuming the direction of two diabetes demonstration units.

Upon the invitation of the Division of the Blind, assistance is being given in a plan to test a large group of the blind population in Massachusetts in an effort to determine the relationship of diabetes to blindness.

Hospital Facilities Section

The Hospital Facilities Section serves as the consultant unit of the Public Health Service for the planning, design, and administration of hospitals and other health facilities. The section has maintained close working relationships with national professional organizations in the hospital, medical, and architectural fields.

During the year work was continued on the development of plans to meet the obligation which will be placed on the Public Health Service by S. 191, the Hill-Burton hospital survey and construction bill. During consultation with a special subcommittee of the Senate Labor Committee, the section supplied technical information on questions relating to hospital need, hospital organization, and administration.

The section developed a second model survey bill in collaboration with the Federal Security Agency's Office of the General Counsel, the Federal State Relations Section of the Department of Justice, and the Council of State Governments, for the benefit of those States wishing to authorize hospital surveys by means of specific legislation.

The Public Health Service has participated in the regional meetings of the Council of State Governments, at which the model hospital survey bill was discussed.

In order to measure the influence of the first model hospital survey bill, developed in 1944, a study was made of State legislation both enacted and considered during the 1945 legislative sessions. As of October 4, 1945, 18 States had enacted laws providing for a State-wide survey of existing hospital facilities. In 9 of the 18 States, these laws provide for the administration of a State-wide hospital and public health facility construction program upon completion of the surveys.

The section also analyzed and kept current information on pertinent State legislation, and kept district directors informed.

Technical advice was given to the district offices for their consultations with State officials. Advice was also given directly to the States, upon request, through correspondence and conferences.

Cooperative activities were continued during the year with the Commission on Hospital Care in Chicago. A medical officer of the Section served as assistant director of the Commission.

Throughout the year the section chief served as a member of a committee of the American Hospital Association to draft a model hospital licensure bill. This bill will be completed and submitted to the States through the Council of State Governments in time for consideration by the State legislatures meeting during the winter of 1946–47.

Research was conducted and presentation drawings were completed by the technical services unit of the section for a children's convalescent home, a 10-bed health center with offices for private practitioners, an X-ray therapy department for a general hospital, a milk room for a nursery unit, and physiotherapy and occupational therapy suites for a tuberculosis hospital. In addition to this, all hospital room details were rechecked and proper revisions made.

Research is now under way to establish standards for mental hospitals and reception units to be connected with general hospitals, planned flexible laboratory units to be applied to various kinds of research laboratories, and a 300-bed chronic disease hospital.

Architectural aid in the form of preliminary drawings and plans was given to eight other divisions of the Service and aid was also given to the Children's Bureau, the Office of Inter-American Affairs, the Pan-American Sanitary Bureau, the Farm Security Administration, the Veterans Administration, and the Bureau of Prisons. Consultative services were given in Virginia, District of Columbia, Maryland, Alabama, Massachusetts, Kentucky, Kansas, and Puerto Rico.

Plans for 35 health facility projects were sent in for review. More than 200 architects from the United States and abroad visited the Section for direct consultation and assistance.

Scale models of a nursery unit, pediatrics unit, and maternity unity, designed in collaboration with Children's Bureau, Department of Labor, have been displayed at meetings of medical societies, hospital associations and other interested groups. A display on a coordinated hospital system was prepared for the American Medical Association convention in San Francisco. Also utilized were 5,000 copies of Health Center Designed for Rural Needs, an article prepared by the Section.

During the year, response has been made to numerous mail inquiries from State and local officials, professional persons, businessmen, voluntary community groups, etc., on the sources of Federal aid for hospital construction, interpretations of various provisions of S. 191, hospital licensing, hospital planning, and design. Inquiries were received from approximately 980 different communities representing 46 of the 48 states, the Territories, and 22 foreign countries.

Articles on various hospital facilities were printed in 13 periodicals during the year.

This Section, in cooperation with the Interior Department, has continued the operation of the 23-bed hospital established in connection with the Boulder Dam project, Boulder City. Nev.

Office of Surplus Property Utilization

The Office of Surplus Property Utilization was established in July 1945 at the request of the Surplus Property Board, to assist in administering that part of the Surplus Property Act which permits transfers of surplus goods to State or local health agencies at lower prices than to other classes of buyers. Its principal functions have been: (1) Determining the status of State or local agencies as public health institutions, and certifying to War Assets Administration as to their eligibility to buy at a discount; (2) determining the amounts of various surplus property items that public health agencies will need; (3) assisting disposal agencies in acquainting eligible claimants with property available; and (4) surveying surplus real property to determine its suitability for use by local health agencies and their need for it.

More than $7,000,000 in orders of personal property were certified by field representatives in the first 3 months of operations. In addition, measures were initiated for the transfer of surplus military hospitals and camps with a capacity of over 20,000 beds, to State or local health agencies.

Philippine Islands Public Health Services

A program was inaugurated to reconstitute health services in the Philippine Islands. These services were greatly needed because of the havoc wrought by the war.

The principal public health problems concerned the control and suppression of venereal disease, tuberculosis, malaria, and general sanitation. Nutrition problems aggravated these diseases. Another problem was the reestablishment of leper colonies. Uncontrolled diseases slowed up, to a large extent, the rehabilitation of industry.

Venereal Disease Division

Studies completed during the fiscal year indicated that remarkable progress has been made since enactment of the Venereal Disease Control Act in 1938.

The number of deaths due to all forms of syphilis declined steadily from 15 per 100,000 population in 1939 to a new low estimated at 10.7 for 1945. The percentage of infant deaths due to syphilis was reduced by more than one-half—from 57 per 100,000 live births in 1939 to 25 in 1943. As reflected both in admissions to institutions and in recorded deaths, there was a steady decline in the incidence of late forms of neurosyphilis. In 1920, the national paresis death rate was 6.3 per 100,000 population; by 1943, this had been reduced by nearly half to 3.5 per 100,000. The tabes dorsalis death rate per 100,000, which was 2.1 in 1920, had dropped dramatically to 0.6 per 100,000 in 1943.

Much progress was made in the development and widespread application of new, rapid methods for treating syphilis and gonorrhea, and in increased case-finding activities. Intensive in-patient treatment of syphilis, employing penicillin in combination with arsenic and bismuth, made it possible to complete treatment of early syphilis within 2 weeks. Methods were developed whereby the physician in his own office or in a clinic could complete treatment of gonorrhea in a few minutes to a few hours.

Because of the new, rapid methods of treatment, emphasis has been redirected toward case finding rather than case holding, with the result that more contacts per infected patient have been obtained than in previous years, and the number of infected contacts brought to treatment per new admissions to clinics has risen for the country as a whole.

Cases Reported [1]

During the fiscal year 1946, a total of 760,000 cases of venereal disease were reported from all sources [1] to State and territorial health departments, an increase of 12.4 percent over the previous year. These included 372,000 cases of syphilis, 375,000 cases of gonorrhea, and

---

[1] Cases reported to State and territorial health departments are cases reported for the first time. Clinic admissions and rapid treatment center admissions include cases which may have been reported previously. Clinic admissions include rapid treatment center admissions.

12,000 cases of other venereal diseases. This represented an increase of 0.7 percent for syphilis and an increase of 26.4 percent for gonorrhea.

Clinics[1] admitted a total of 499,000 patients, an increase of 18.4 percent. This included 254,000 admissions for syphilis, a decrease of 8.8 percent; 237,000 for gonorrhea, an increase of 16.4 percent; and 8,000 for other venereal diseases, a decrease of 1.2 percent. Rapid treatment centers[1] admitted 176,000 patients, an increase of 37.5 percent, including 120,000 cases of syphilis, an increase of 94 percent, and 32,000 cases of gonorrhea, a decrease of 53 percent.

The number of cases of primary and secondary syphilis reported was 97,000, and the number admitted to clinics was 57,000, of which 47,000 were referred to rapid treatment centers. The number of early latent cases reported was 111,000, and the number admitted to clinics was 89,000, of which 46,000 were referred to rapid treatment centers.

The number of clinics receiving Federal, State, and local financial assistance was 3,324, or 153 fewer than in the previous year.

Whether the rise in the number of cases of gonorrhea reported indicates an increase in the attack rate, an increase in the proportion of infected persons seeking treatment because of their awareness of the availability of new, effective methods of treatment, or a combination of both influences, the necessity for further informing the public of the new methods of treatment becomes increasingly apparent.

Appropriations, Allocations, and Budgets

For the fiscal year a total of $17,240,000 was appropriated for venereal disease control. Of this total $5,647,000 was designated by Congress for expenditure in connection with rapid treatment centers and other in-patient care, $8,756,876 was allocated to States, and $2,836,124 remained for administration of the program, research activities, demonstrations, and for the assignment of personnel to State and local health departments.

Cooperation With State Health Departments

Practically all of the activities of the Venereal Disease Division were conducted in cooperation with State and local health departments, and many were in cooperation also with the armed forces, private physicians, and other official and nongovernmental groups. Cooperative activities included the rapid treatment center program, community-wide intensive public education and case-finding programs, the armed forces separation blood-testing program, research, and evaluation studies.

Rapid Treatment Center Program

Beginning with the fiscal year the administration of Federal funds supporting rapid treatment centers was transferred from the Federal Works Agency to this division.

During the year 52 projects were approved to receive funds for the operation of in-patient treatment facilities. These projects provided State-wide in-patient treatment services in 38 States, the District of Columbia, and 1 Territory. They include the operation of 41 centers with bed capacities ranging from 25 to 235, and of 19 bed contract plans in which syphilis patients are referred to general hospitals by health departments.

Of the 176,000 patients admitted to rapid treatment centers during the fiscal year, 68 percent were admitted for treatment of syphilis, 18 percent for gonorrhea, less than 2 percent for other venereal diseases, 2 percent for posttreatment observation, 7.5 percent were found to be negative for any venereal disease, and 3 percent were late latent syphilitics found to be negative for central nervous system involvement.

Of the total syphilis admissions to rapid treatment centers practically all were in the early stages, infectious or potentially infectious. Syphilis admissions were: Primary and secondary syphilis, 39 percent; early latent syphilis, 38 percent; central nervous system involvement, 6 percent; syphilis in pregnancy, 4 percent; congenital syphilis, 4 percent; late or late latent syphilis, 9 percent.

Of the total admissions, 39 percent were white and 61 percent nonwhite; 53 percent were males and 47 percent females. Of the white patients 56 percent were males, and of the nonwhite, 51 percent. The proportion of male admissions increased by approximately 40 percent compared with the previous year, which may be attributed to demobilization.

Age ranges of all patients admitted to rapid treatment centers were: Under 20 years, 25 percent; 20 to 24 years, 31 percent; 25 years or over, 44 percent. Among white females admissions age ranges were: Under 20 years, 29 percent; 20 to 24 years, 33 percent; 25 years or over, 37 percent. Age ranges for nonwhite females were: Under 20 years, 38 percent; 20 to 24 years, 32 percent; 25 years or over, 31 percent. Age ranges for white males were: Under 20 years, 10 percent; 20 to 24 years, 31 percent; 25 years or over, 59 percent. Age ranges for nonwhite males were: Under 20 years, 21 percent; 20 to 24 years, 30 percent; 25 years or over, 49 percent.

The average cost of treating patients in rapid treatment facilities was approximately $5 per day. Direct operating costs in rapid treatment centers were $4.74 per day, and per diem costs in bed contracts averaged $6.75.

The average stay for syphilis patients was 11 days and for gonorrhea patients, 3 days.

Mass Case-Finding Demonstrations

The Veneral Disease Division cooperated with State and local health departments and private physicians in four intensive, 45-day programs of venereal disease case-finding and public education. Preliminary tabulations showed that in the four communities, with a total estimated population of 621,000, blood tests were given to 193,890 persons, among whom 8,376 new cases of venereal disease were discovered, including 6,643 cases of syphilis and 1,733 cases of gonorrhea, at an estimated total cost of $174,833. In the four projects the average cost of blood tests was slightly more than 90 cents and the average cost for discovering a new case of venereal disease was $20. In addition to new cases found during the demonstrations, benefits to future community health were derived from increased individual and community knowledge of facts about venereal diseases which resulted from the intensive public educational activity.

The demonstration projects were conducted in Columbia, Richland County, S. C.; in Oklahoma City, Oklahoma County, Okla.; in Savannah, Chatham County, Ga.; and in Columbus, Muscogee County, Ga. The Savannah and Columbus demonstrations were joint projects conducted with the Tuberculosis Control Division to discover cases of both tuberculosis and venereal disease.

Armed Forces Separation Blood Testing Program

The cooperative blood-testing program with the Army, Navy, and Coast Guard, whereby all members being separated from the services are blood tested for syphilis, was continued. In both the Navy and Coast Guard arrangements were made whereby all separatees with positive results to the serologic test for syphilis were referred to the appropriate rapid treatment center or health department for follow-up observation. Arrangements were made with the Army whereby the Public Health Service provided interviewers at all separation centers and the larger separation points, who interviewed separatees with positive or doubtful tests, and referred them or provided transportation to the nearest rapid treatment center.

Clinic Cost Analysis

As recommended by the Association of State and Territorial Health Officers, an analysis of unit cost of various venereal disease control activities, including clinic costs, was made by the Venereal Disease Division in cooperation with district offices and State and local health departments.

The study showed that under current planning and budgetary systems there is a time lag in the use of funds for application of new control techniques, and that despite great emphasis given the importance of increased case-finding and diagnostic activities, only 9 percent of Federal grants-in-aid funds was being spent for diagnosis and only 11 percent for contact investigation; 4 percent was still being spent for delinquent case investigation, an activity which will diminish in importance with the increased application of new treatment methods.

Therapy Evaluation

The Evaluation Unit initiated or continued the analysis of approximately 40 massive arsenotherapy or penicillin routines in the treatment of early syphilis. Fifteen of these were first used during the fiscal year.

A cumulative report, covering 33 schedules of therapy employed at rapid treatment centers, showed variations in so-called failures, including possible reinfections, from 8 percent following 7- to 10-day modified Schoch after 12 months' posttreatment observation, to 62 percent following 10,000,000 units of penicillin 1-day continuous intravenous drip after 7 months.

Another study, among 8,000 patients observed, 10 to 15 months after treatment showed little difference in effectiveness among schedules ranging from 600,000 to 2,400,000 units of penicillin alone. A schedule of 1,200,000 units of Penicillin with five injections of arsenoxide and three of bismuth gave better results than any other therapy employing penicillin—after 10 months, only 7.6 percent of the cases had been retreated, 55.5 percent were serologically negative, and 37 percent remained serologically positive.

An evaluation of the treatment of gonorrhea showed that a single injection of 200,000 units of calcium penicillin in peanut oil and beeswax or 200,000 units of aqueous sodium-penicillin administered in 2 hours or in 3 hours were effective in 92 to 96 percent of the cases treated.

A new evaluation research project, known at the Blue Star Study, was initiated at 10 rapid treatment centers in which specially selected spyhilis patients will be followed up for a minimum of 5 years to determine the effectiveness of four different schedules of penicillin treatment.

Cooperative Statistical Research

The Medico-Statistical Research Unit completed several major studies during the year. A study of the positive serologic tests for syphilis among men of draft age showed that in any occupation group, the prevalence of syphilis is substantially higher among single than among married white men, and that there is a correlation between occupation and the prevalence of syphilis.

Another study based on the blood serologic tests performed on Selective Service registrants in 1942 and 1943 indicated a slight downward trend in civilian rates for syphilis during the war period.

A 12-year study showed that the life span of male Negroes with untreated syphilis was about 20 percent shorter than that of a comparable uninfected group. Another study showed that the life expectancy of persons treated for syphilis was reduced by only half as much as that of untreated syphilitics.

Study of wartime changes in the age distribution of females infected with syphilis showed that, contrary to current impressions, a tendency toward an earlier age of infection among white females seems to be associated with an increasing concentration of civilian populations, rather than increasing military populations, and that there has been no Nation-wide shift toward teen-age infections.

Continuing studies included yearly testing of a group of untreated syphilitic male Negroes and a control group, and a plan for a 20-year annual checkup of 6,000 patients treated with massive arsenotherapy.

New studies in progress at the end of the fiscal year included one to determine whether penicillin has a specific effect on the uterus; a study of the possibility of making early diagnosis of uncomplicated syphilitic aortitis; an effort to develop more effective statistical methods to assist in the evaluation of intensive schedules of treatment for syphilis, including detailed statistical analysis of data from quantitative serologic tests; development of a method whereby results of quantitative diagnostic tests from different laboratories may be rendered comparable for pooled analysis; and the application of statistical techniques to the evaluation of the effectiveness of educational materials.

Research, Development, and Professional Training

The Venereal Disease Research Laboratory at Staten Island, N. Y., performed thousands of serology tests, distributed serologic test reagents to health departments and hospitals throughout the country, trained a large number of laboratory workers for health departments, conducted research relating to antigens, studied new antibiotics, prepared penicillin, investigated methods for estimation of penicillin, studied the use of penicillin in the treatment of syphilis and gonorrhea, studied diagnostic tests for granuloma inguinale, and planned an enlarged research center which will include physics, botany, photophysics, pharmacology and toxicology, mycology, chemical synthesis, and histopathology units. A conservatory is planned to be devoted to a search for botanical specimens which have the capacity to produce antibiotic activity against strains of bacteria which are pathogenic to man.

Studies also were conducted at the laboratory concerning synthetic media for the growth of spirochetes and the tubercle bacillus, the fractions of penicillin, the activity of streptomycin, procedures for preservation and processing of sheep red cells, the herpes virus, nonspecific urethritis, immunology, and production of crystalline penicillin.

At the United States Public Health Service Medical Center, Hot Springs National Park, Ark., studies of penicillin treatment of early syphilis and gonorrhea were conducted, and studies of the results of penicillin therapy in neurosyphilis were continued.

The Venereal Disease Research and Post-Graduate Training Center of the United States Public Health Service at Johns Hopkins Hospital, Baltimore, Md., conducted research on the treatment of arsenic poisoning with the peanut oil solution of British Anti-Lewisite (BAL) developed in the center's laboratory, results of which were highly satisfactory. Research was continued in connection with the efficacy of penicillin in the treatment of experimental syphilis. Of particular importance were the studies of the synergistic action of penicillin and mapharsen, the effect of hyperpyrexia on the therapeutic efficacy of penicillin, the effect of the frequency and duration of treatment on the therapeutic efficacy of penicillin, the relative activity of crystalline penicillin G, F, X, and K, and calcium penicillin in oil and beeswax. Studies were made on the treatment of early trypanosomiasis with a new trypanocidal agent which was developed at the center, and on the therapeutic efficacy of antimonials in experimental leishmaniasis and schistosomiasis.

The Institute for the Control of Syphilis at the University of Pennsylvania, in cooperation with the Public Health Service, conducted courses in venereal disease epidemiology, public health control of venereal disease, and health and human relations. The institute conducted clinical and laboratory investigations of biologic false positive serologic tests for syphilis.

The Emory University School of Medicine, cooperating with the Public Health Service, made progress in its studies of the diagnosis and treatment of lymphogranuloma venereum and chancroid, and conducted research on the effect of typhoid vaccine fever therapy.

The Washington University Medical School at St. Louis, Mo., began a training and research program to study techniques of interviewing venereal disease patients and teaching effective techniques to medical students and to others who may be concerned with venereal disease casefinding.

A study of the community control of gonococcal infection, including evaluation therapy, community education, and contact investigation, was continued in Glynn County, Ga., in cooperation with the Glynn County Board of Health.

Cooperative studies were conducted at the University of Rochester School of Medicine and Dentistry and Strong Memorial Hospital, Rochester, N. Y., regarding epidemiology of gonorrhea, evaluation of penicillin, and its fractions in the treatment of gonorrhea, observations on the possibilities of the gonococcus acquiring penicillin fastness, development of new methods for the cultural diagnosis of gonococcal infection, and evaluation of educational methods in the control of gonorrhea.

Scientific Information

In response to a steadily increasing demand for information on the scientific aspects of venereal disease, a scientific information section has been established. This section has the responsibility of editing and publishing the Journal of Venereal Disease Information, supplements to the Journal, and other scientific literature. It will ultimately include a research library and a bibliography and reference service, which will be made available to medical schools, health departments, medical societies, and individuals engaged in venereal disease research.

During the year approximately 8,000 paid and 6,000 free copies of the Journal of Venereal Disease Information were distributed each month. The publication of abstracts of foreign literature was resumed. Two new supplements were issued, and the section cooperated with the Venereal Disease Education Institute in issuing two valuable handbooks for physicians and laboratory workers on the technics of venereal disease diagnosis.

Twenty-two original articles from the Journal were reprinted during the year. Twenty-three of the thirty-six original articles published in the Journal were by medical officers and other scientific personnel of the division.

Education, Extension, and Training

The base line for action on education and case-finding personnel aspects of venereal disease control was furnished by reports of the State and Territorial Health Officers' Association and of the Advisory Committee on Public Education for the Prevention of Venereal Diseases. "Successful control of venereal diseases in the foreseeable future," the Advisory Committee reported, "will be impossible without full use of public education and community action, functioning through various types of planned community organization." The need for qualified, trained health education and associated personnel and for the development of training facilities and consultation services was also stressed. These conclusions were endorsed, with a strong recommendation for action, by the Health Officers' Association in April of 1946.

Despite serious limitations of personnel during the war period, some progress toward implementing these various recommendations has been made by the division. Several intensive, short-term case-finding projects conducted in collaboration with State and local health departments afforded opportunities to test and demonstrate the validity of a variety of informational techniques.

The Venereal Disease Education Institute of Raleigh, N. C., under the joint sponsorship of the Public Health Service, the North Carolina State Board of Health and the Z. Smith Reynolds Foundation, developed and produced a wide variety of educational materials for experimental purposes as well as for general use.

In cooperation with the Public Health Service, the American Social Hygiene Association conducted several continuing studies on ways and means of expanding and improving public education in social hygiene. The association has made a significant contribution in connection with developing programs of venereal disease control and education among industrial groups, both from the point of view of management and of labor. Its joint committee with the American Pharmaceutical Association, in cooperation with the Public Health Service, continued to enlist the active participation of pharmacists in venereal disease control programs.

Because of the fundamental relationship between sound social hygiene and the control of venereal disease, a program of community organization was undertaken in cooperation with the American Social Hygiene Association. The results have been impressive both in terms of organizing social hygiene groups and in heightening interest and activity in the field of venereal disease control.

To facilitate the recruitment of veterans for civilian venereal disease control positions, the division, in cooperation with the Bureau of Medicine and Surgery of the Navy, developed a roster of Navy Hospital Corps personnel. The names and qualifications of these men were cataloged and made available to State and city health officers. Through the United States Employment Service, a similar arrangement was made previously by the Army.

As a major initial step toward implementing the recommendations of the State Health Officers' Association regarding educational and case-finding personnel, the division developed and circulated a tentative formulation of qualifications and duties, together with a recommended plan of training. The response of health officers was uniformly favorable.

At the request of the Bureau of Medicine and Surgery of the Navy, the division organized and conducted an orientation course in venereal disease control for naval and civilian personnel in the spring of 1946.

On the basis of these activities, the Surgeon General on April 23, 1946, authorized the creation of an extension and training services unit in the Venereal Disease Division. Its functions will be to encourage active understanding and practical activities on the part of allied professions, governmental and voluntary health agencies, and other groups in support of public health venereal disease control programs and general preventive efforts. It will also promote a progressively better application of principles and techniques through orientation and training of personnel and by the development of improved techniques. At the close of the fiscal year, this unit was in the process of organizing and developing plans of action in the field of education and epidemiological case finding.

Tuberculosis Control Division

The Tuberculosis Control Division has reached the end of its second full year of operation, during which it has strengthened its program of Nation-wide control of a disease that kills more than 50,000 Americans each year. In consequence of grants-in-aid and cooperation with State and local health departments and the National Tuberculosis Association, almost every State in the Union now has a full-time tuberculosis officer and a planned program of control.

The office of the chief is responsible for personnel, development of policies and standards, preparation of statistical data and analyses for planning hospital programs and tuberculosis control measures, and provides graphic and publication service to the division. The division publishes monthly a special tuberculosis control issue of Public Health Reports, which among tuberculosis specialists and public health authorities has a combined circulation of approximately 18,000. This project began in March 1946.

Because tuberculosis is a relapsing and debilitating disease, rehabilitation and aftercare are extremely important objectives in control. Extensive studies in the medical aspects of rehabilitation have therefore been undertaken in the office of the chief.

The Nursing Consultation Service, in the office of the chief, is organized (1) to prepare qualified personnel to pursue public health nursing activities in States and communities and to discover or develop additional facilities for tuberculosis nursing training in State universities, (2) to assist States through the loan of trained nursing personnel, in order to stimulate States to train their own personnel, (3) to furnish consultant service to States in planning in-service work for all public health nurses, and (4) to provide informational service to all nurses in tuberculosis control, so that personnel will be thoroughly acquainted with new developments in the medical and scientific areas of their field.

In cooperation with the Division of Public Health Methods, the Tuberculosis Control Division participated in the preparation of informational material for technical and professional groups engaged in tuberculosis control. As part of the program sponsored jointly by the National Tuberculosis Association, the American Hospital Association, and the United States Public Health Service, to stimulate the use of mass radiography in hospitals, an exhibit, a kit of written materials, and a 20-minute sound motion picture, "Routine Admission Chest X-ray in General Hospitals," were prepared for hospital administrators and physicians. The Division also cooperated in the production of a motion picture, "Techniques of Group Chest X-ray Services," and in the preparation of three 35-mm. training-strip films for the education of personnel.

The State aid section is organized to assist the States in tuberculosis control by grants-in-aid, consultation service regarding control methods and procedures, loan of personnel, and demonstrations of photofluorographic units in the field.

The field studies section is primarily responsible for conducting basic research in the improvement of all techniques in tuberculosis control.

The radiology section has the following purposes and activities: (1) Maintenance of X-ray equipment owned and operated by the division, (2) research into the applications of radiology to tuberculosis control, (3) unification of X-ray equipment, and (4) training of professional personnel in all aspects of chest X-ray examination.

Objectives.—The division has four major objectives: (1) The discovery of all cases of tuberculosis in the country, (2) isolation and medical care for every patient needing treatment, (3) aftercare and rehabilitation, and (4) protection of the afflicted family against economic distress. In order to attack most effectively the many problems in tuberculosis control, the Division employed four principal techniques: (1) Aid to States, (2) demonstration and services, (3) research, and (4) training of professional personnel.

Aid to States

The first of these techniques is an extensive grants-in-aid program. Of its total appropriation of $6,047,000, the division allocated $5,200,000 for grants-in-aid. This fund was used by the States for the purchase of equipment, recruitment and training of personnel, and case-finding and follow-up activities. The States were able to add more than 1,000 full-time workers to their tuberculosis control staffs. By the end of the fiscal year, 44 of the States and Territories had full-time tuberculosis control officers, as compared to 21 in 1944. Approximately 165 additional X-ray units and considerable amounts of equipment and supplies were purchased with grants-in-aid funds.

The division participated in these State functions through consultation, demonstrations, and the loan of professional personnel. Full-time consultants were made available to each of the district offices for work with the States. During the year, these consultants made an evaluation study in each State, assessed the State's current program, and secured an estimate of future needs.

Because of the great shortage of trained personnel for State and local programs, the division lent 27 medical officers to State and local health departments. Medical officers acted as State tuberculosis control officers in 13 States that were unable to procure their own personnel.

Forty-three public health nurses with special training in tuberculosis assisted States and communities in their case-finding and follow-up programs. Nursing consultant service from headquarters was given to 17 State departments of health and to 4 city health departments. Record system consultant service was given to a majority of the States, and 17 reporting methods analysts were lent to half the States to help in the establishment of tuberculosis record systems.

Demonstrations and Services

Demonstrations designed to show the value of modern techniques in case finding and follow-up were one of the principal activities of the division. During the year, 20 photofluorographic demonstration units were in operation. These units proved their usefulness as practical instruments for the discovery of cases of tuberculosis during the early remediable stages of disease. Special case-finding demonstrations, conducted jointly with the Venereal Disease Division, were held in Savannah and Columbus, Ga. In Savannah the rapid coverage of an entire county, by the massing of a number of units in one area, was attempted and found successful. Approximately 70,000 persons were X-rayed in a 6-week period. Other city-wide programs are planned for the coming year.

During the year, as part of special studies, the radiologists of the Division reviewed more than 100,000 roentgenograms of the chest. Approximately 70,000 were read for the study of minimal lesions among student nurses, and another 25,000 in a special study of histoplasmin sensitivity and calcification. The Division also performed radiological services for the Coast Guard and for the War Shipping and Maritime Service.

To furnish a social and economic description of discharged cases, and to estimate the tuberculosis population tractable to rehabilitation measures, a study of the after experience of persons discharged in 1941–42 from 13 public sanatoria in New Jersey was undertaken by request of the New Jersey Department of Health and the Department of Institutions and Agencies.

The basic data for a cooperative study with the Altro Workshop of New York City, to provide an analysis of the workshop experience and a detailed social description of patients admitted, has been collected. An evaluation has been made, and a report written.

The results of an investigation of the cost of tuberculosis to families and communities, recently undertaken in Montgomery County, Md., has been completed. The original objectives were broadened to consider home and family circumstances affecting care and treatment.

A supply depot was established in Phoenix, Ariz., to accommodate photofluographic demonstration units west of the Mississippi.

The Division surveyed accounting systems in 12 tuberculosis hospitals in Michigan, Minnesota, and Wisconsin and developed a comparison of present accounting systems with those recommended by the American Hospital Association. Although the systems in use are adequate, they all differ; the cost of patient care can only be established through a standard accounting system among the tuberculosis hospitals of the Nation.

To measure the activity, effectiveness, and operating costs of chest clinics, the Division initiated field studies of clinic facilities in Georgia.

The Division prepared special analyses of the need for additional tuberculosis hospital beds in Missouri, Georgia, Florida, West Virginia, Colorado, and Puerto Rico; as well as lists of surplus Army Hospital Facilities for use by district and State officials in planning an expansion of tuberculosis hospital programs. Studies were made to determine the amounts of State and local public funds appropriated or expended for hospitalization and the construction of hospitals for the tuberculous.

Research

For the improvement of techniques in tuberculosis control, the Division conducted (1) BCG vaccination and minimal tuberculosis lesion studies, (2) statistical and experimental studies of mortality and morbidity, case-finding methods, and record-keeping systems, (3) laboratory investigations in culturing tubercle bacilli, (4) chemotherapy experiments on the effects of drugs and antibiotics, and (5) studies in rehabilitation and the socio-economic aspects of tuberculosis.

The investigation of early tuberculous lesions among student nurses, begun in 1943 with the National Tuberculosis Association, has been extended to include more than 14,000 students in 76 hospitals in 10 metropolitan centers. Results indicate that repeated tuberculin tests constitute one of the most dependable guides in diagnosis, and that careful follow-up examinations not only permit an accurate interpretation of lesions, but also indicate the course of treatment to be pursued.

Testing with histoplasmin and other fungus antigens has shown that a mild, subclinical condition, associated with sensitivity to histoplasmin, is responsible for much of the pulmonary calcification in certain parts of the United States—notably the east central, where 70 percent of the student nurses tested with histoplasmin were positive.

Through the recently established field station in Kansas City, Mo., about 16,000 school children in Kansas City and 3,000 in Wichita have been X-rayed and tested with histoplasmin and tuberculin—the first step of a cooperative study with the city health department, board of education, and the local tuberculosis association. Follow-up work among those with pulmonary pathology is progressing. The bacteriology and mycology specimens obtained from patients with chest lesions are being studied.

A study of problems concerning the growth of the tubercle bacillus has been undertaken in cooperation with the Rockefeller Institute for Medical Research. A medium permitting rapid growth of the organism was developed, and has been used successfully in the diagnosis of tuberculous meningitis. Other studies are being made of the biochemistry and ecology of free-living microorganisms, in order to learn the characteristics that the tubercle bacillus and related organisms have in common.

Special cooperative studies are under way at the Phipps Clinic in Philadelphia and at the Department of Experimental Medicine and Surgery at Ohio State University.

A published report on the 6-year vaccination study of 3,000 American Indian children indicated that a high degree of protection was afforded by the BCG vaccine: Among the unvaccinated there were 7 times the number of deaths from tuberculosis as there were among the vaccinated. Plans have been made for collecting additional data in order to determine the length of the period of protection.

To achieve uniformity in diagnosis, medical care, and isolation, the Division is undertaking the development of a new system of classifying cases and is preparing a practical guide for the disposition of persons with abnormal pulmonary findings on X-ray films.

Five reports on tuberculosis mortality were published during the year, two of them in collaboration with the Division of Vital Statistics, Bureau of the Census, and one with the National Tuberculosis Association.

Investigations were conducted to determine hospital requirements for the tuberculous in the United States. Mortality trends, by place of occurrence, were established; bed deficiencies were estimated; and a revised budget estimate for hospital construction appropriations was prepared. Maps were made showing the location of all tuberculosis hospital facilities, 1946, by size, with relation to the tuberculosis death rate, 1944, and to projected health service areas. A directory of beds available on January 1, 1946, for cases of tuberculosis by State was prepared.

Cost analysis of the operation of our field X-ray units was initiated. An accounting analysis of reports has been set up on a continuing basis.

Research in radiology was chiefly concerned with the problems of mass chest X-ray surveys. A study of films used in mass radiography was conducted to determine the relative value of each for specific functions, and a radiological board was established to study the efficiency of various methods of X-ray interpretation.

Research was directed toward the development of new machines and techniques. An X-ray unit was produced that is 25 percent more efficient than any previously available. The unit is about half the size of the older type, is less expensive, and can be operated from domestic power sources. Careful studies demonstrated that one need no longer disrobe to obtain satisfactory miniature films. This assures faster and more efficient operation in mass X-ray programs.

The Electronics Laboratory of the Division in Rockville, Md., cooperates with the National Electrical Manufacturers Association in studies of methods for the standardization of photofluorographic equipment. Much has been accomplished in the improvement of photofluorography and in the development of measures for protecting personnel.

Follow-up studies with Temple University of patients discovered, through industrial surveys, to have minimal tuberculosis are now under way. Investigations are also being pursued on the electronic amplification of the fluorescent image, and on its use in photofluorography.

Training

Because of the continued shortage of trained professional personnel, the division carried on a training program for medical officers, nurses, photofluorographic operators, and record analysts. Courses were given to 35 Public Health Service medical officers and to 5 from foreign countries.

During the year, 14 staff nurses were given special preparation in tuberculosis work. In two to four different localities of each of six States, tuberculosis institutes, or workshops, for nurses were held. Many conferences were held with the faculties of university and hospital schools of nursing, in order to encourage them to add or strengthen courses on tuberculosis for nursing students. One staff member acted as instructor in two courses on tuberculosis nursing at the University of Michigan and the University of California.

The division, in cooperation with the Saranac Lake Study and Craft Guild, continued to train photofluorographic operators. Some of the graduates were detailed to operate the photofluorographic units of the Division; most of them were sent out to the States.

Industrial Hygiene Division

With the ending of the war, emphasis has shifted from cooperative programs with war agencies to the more general activities of peacetime, but there has been no diminution in the number, scope, or complexity of industrial health problems. To meet present needs the Division is planning an expanded program for the coming year, and has reaffirmed its major objectives, namely, (1) the development of methods aimed at protecting the health of workers, and bringing to them optimum health and complete physical and mental fitness, and (2) the promotion of methods to insure the adoption and practice of health standards developed through investigative work.

Aid to States

There was no change in the number of State and local industrial hygiene units during the year. There are at present 39 State, 1 county, and 9 city units in operation.

State and local industrial hygiene agencies were allotted $1,432,088 for the year's activities. Of this total, 41 percent came from United States Public Health Service general health funds and 59 percent from State and local appropriations. A comparison with last year's budgets indicated that funds appropriated by State and local governments increased $186,000 over last year. The over-all proportion of Federal support decreased 11 percent.

The year was marked by a considerable amount of turnover in State and local personnel. About 320 professional workers are now employed in State and local units.

At the beginning of the fiscal year, some 60 members of the United States Public Health Service staff were on loan to State and local units. During the year, 20 of these were taken over by the States in which they were serving. The end of the war and the resulting inactivation of commissioned personnel accounted for the loss of many others, so that only 9 Service personnel were on loan to States at the end of the year.

One staff member was assigned to district 7 as consultant for industrial hygiene. Plans were completed during the year to assign consultants to all other district offices except that of district 1.

Surveys of industrial hygiene problems.—At the request of the Florida State Board of Health and Workmen's Compensation Division, the Division cooperated in a survey of 905 representative industrial plants in that State. A report was prepared recommending the formation of a division of industrial hygiene and outlining specific problems for study. Late in the year Florida completed plans to establish such a division.

At the request of the Health Commissioner of Puerto Rico, the island's industries were surveyed. Recommendation that a bureau of industrial hygiene be established will be adopted as soon as an engineer now in training returns to the island.

Appraisals of industrial hygiene programs.—The work of 24 State and 2 local units was appraised during the year, and recommendations were made for strengthening and improving their work. Most units needed to increase their professional staffs and required additional funds to fill adequately requests that are made for their services. Some units were in need of more adequate physical facilities.

In preparation for a new plan for reporting field operations in the States, standard activity reports were revised and distributed. A standard statistical summary of activities will henceforward be collected annually.

The Small Plants Health Service, established with the assistance of this division and operated by the Office of Industrial Health of the New York City Health Department in Long Island City was appraised. Recommendations were made for the inclusion of dental services, and for the expansion of this program into other plants.

Consultation services.—All but 4 States received consultation services in the course of some 125 visits made by 13 members of the Division. During these visits advice was sought not only on administrative matters dealing with personnel, budget, recording procedures, and programs, but on specific industrial hygiene problems arising in industry.

Demands for consultation services in industrial nursing continued to be heavy from State departments of health and labor. Nineteen State and local divisions were given assistance. In some cases this assistance amounted to the training of nursing consultants.

Although no dental personnel were added to industrial hygiene units this year, increased dental services were effected through cooperation with dental personnel in State health departments.

Occupational disease reporting and the development of medical programs in industry, especially in smaller plants, were among the most frequent problems requiring medical consultation services.

Several large cities, such as Los Angeles, California, and Charleston, W. Va., sought advice on atmospheric pollution.

Investigations of skin problems.—In collaboration with State units some 42 private plants were investigated for dermatoses problems, and recommendations for prevention were made. These investigations included studies of dermatitis in the canning industry, and the skin irritating properties of fiberglass and synthetic rubber. At the request of the Bureau of Industrial Health of the Michigan Department of Health, a dermatologist was detailed to that State for 2 weeks to investigate dermatitis hazards in Michigan industries.

Environmental surveys.—Special surveys were requested by various State health departments and the District of Columbia. In all of the instances where a definite health hazard was involved, specific recommendations were made to control the atmospheric contaminants so that the worker's health would be adequately protected. Among the problems investigated were the effects of stray radiation, mercury vapor hazards, and exhaust ventilating systems.

Medical survey.—In cooperation with the National Institute of Health, the division assisted the Maryland Division of Industrial Hygiene in the examination of fire clay miners and refractory brick plant employees. It was determined that the mining of hard clay was more hazardous than work in the brick factory.

Laboratory analyses.—Laboratory services to the States included analyses of dusts, solvents, metal fumes, gases, and miscellaneous bulk samples.

Health information.—The Industrial Hygiene Newsletter, official monthly publication of the division; which is distributed to all State and local units, was issued as a printed, illustrated publication at the end of the year, after appearing as a multilith publication for 6 years. Interest in the Newsletter has markedly increased.

At Your Service, an illustrated handbook explaining the services available from State and local industrial health units, was prepared and distributed to States.

Capital Story, a film showing the work of industrial hygiene research laboratories, was produced in cooperation with the Office of War Information.

An exhibit slanted to interest labor unions in industrial hygiene problems was exhibited at several labor conventions. Another, on small plant health programs, was shown at the Industrial Health Conference in Chicago, and a third, on ringworm, was scheduled to appear at a meeting early in the new fiscal year.

Field Investigations

Health of shipyard workers.—Work continued on the cooperative study of the health of shipyard workers. Preparation of the final report is in progress.

Cemented tungsten carbide industry.—Surveys of 2 plants have been completed, and the survey of the third and final plant is in progress. Approximately 1,000 employees were given medical and dental examinations in the first 2 plants, and statistical analyses are being prepared.

In connection with this study, a comprehensive chemical examination and quantitative evaluation of plant atmospheric contaminants is in progress. The carbide dust is extremely refractory and is insoluble in ordinary acids. A method has now been evolved which is practical and accurate for determination of the amount of the various contaminants in air samples.

Foundry industry.—Arrangements have been made for the division to cooperate with the industrial hygiene units in Ohio and Michigan in a comprehensive investigation of the health hazards in the foundry industry. Such a study has never been made either in this country or abroad.

Services to War Department

Ordnance plants.—During the year four Government-owned and contract-operated ordnance plants were resurveyed and one initial survey was made. Special surveys were conducted in three plants, including the evaluation of X-ray exposures in bomb and shell loading plants and of lead exposures in the manufacture of frangible bullets. These activities ceased with the surrender of Japan.

Army Industrial Hygiene Laboratory.—Assistance was given by this division in determining the skin-irritating properties of the various fractions of copper naphthenate compounds. Cooperation was also given in carrying out a series of patch tests with various anti-mildew agents impregnated into cloth.

Cooperative Activities

Interstate Commerce Commission.—In June 1945, the chief of the division presided at a special conference called by the Interstate Commerce Commission to discuss the employment of war veterans suffering from psychoneuroses as drivers of trucks and buses. The chief of the Mental Hygiene Division also attended. Subsequently a form was prepared for the use of the general medical examiner, to take the place of a similar form now contained in the Commission's Motor Carrier Safety Regulations. The form covers psychiatric as well as medical matters, and an explanatory Circular to Examining Physicians is attached. At this same time, a medical form was selected for the use of the psychiatrist in his examination of applicants referred to him by the general medical examiner. After review by persons attending the initial conference, it was agreed that the forms and circular be reviewed by a member of the Bureau of Motor Carriers, Interstate Commerce Commission, and incorporated into a tentative revised draft of the Motor Carrier Safety Regulations. The draft will be submitted to the Industrial Hygiene Division for review and comments.

Public Buildings Administration.—The division is actively participating in a program with the Public Buildings Administration, the Bureau of Internal Revenue of the Treasury Department, and the National Society for the Prevention of Blindness, to demonstrate the effects of improved lighting, color engineering, and other controlled changes in environment upon working efficiency.

Bureau of the Mint.—At the request of the Bureau of the Mint an environmental survey was made of the Philadelphia mint. Although the report is not yet completed, it is obvious that the sanitary facilities, lighting system, and exhaust ventilating systems are in urgent need of improvement. Arrangements have been made to conduct a similar survey at the United States Assay Office, New York.

War Assets Corporation.—At the request of the War Assets Corporation, members of the division, the Quartermaster Department of the Army, the Chemical Warfare Service, and the National Bureau of Standards, met to discuss the disposal of $28,000,000 worth of clothing which has been treated with impregnite. The material thus treated is a very definite skin irritant, and it is necessary to decontaminate it before it can be sold to the public.

Federal Interdepartmental Safety Council.—The division continued to be active in the Federal Interdepartmental Safety Council, which is charged with devising and establishing a safety and health program to protect Federal workers throughout the Nation.

Direct assistance to plants.—Assistance continued in the establishment of a company-wide industrial hygiene program in a large corporation, until competent personnel could be obtained to carry on the work. The training of company personnel in industrial hygiene techniques comprised an important phase of this program.

Assistance was given a large corporation in the preparation of a proposed dental program to be initiated in plants in 39 States.

Radium-painted dials.—The division continued to assist State and local industrial hygiene units and salvage companies in developing and applying safe methods for disposing of surplus stocks of radium-painted instrument dials.

Standardization activities.—The division continued to help evaluate and improve chemical methods in laboratories of State and local industrial hygiene units. Each laboratory was asked to analyze 2 samples of a solution containing a known quantity of lead. Methods, procedures, and results of this analysis will be published, and it is planned to extend the program to the analysis of all known toxic substances.

City health departments.—Assistance continued to be given to the New York City health department in devising methods to reduce the number of illuminating gas fatalities.

At the request of the District of Columbia health department, several investigations were made of health hazards associated with various industrial operations.

Miscellaneous activities.—During the year this division was called on by various Government agencies in Washington to investigate problems concerning the working environment, such as odor nuisances at the Weather Bureau and illumination problems at the General Accounting Office.

Dermatoses Investigations

Outbreaks of dermatitis from synthetic rubber, dichromates, synthetic resins, cutting oils, and munitions were investigated during the year. Other investigations of importance follow.

Ringworm of the scalp.—The experiment on the control of epidemic scalp ringworm among children has been completed. This study showed that the disease can be controlled without segregation or absence from school and various new forms of local therapy were successfully used. Two chemicals, new to the field of medicine, were found to be most efficacious in local therapy. A report of the study is in press.

Protective ointments.—The study of efficacy of protective ointments now being used in industry was completed, and the results were published.

Melanin.—A study is being conducted to determine the chemistry of this organic substance responsible for normal and abnormal pigmentation of the skin.

Resins.—Because all resins in the uncured form are primary irritants and skin sensitizers, numerous investigations were made in this field. Some of the resins studied were phenol formaldehyde and urea formaldehyde, used in the manufacture of plastic bottle caps, and phenolic resins used in the manufacture of brake linings.

Other studies.—Other studies included the oxidation of catechols by tyrosinase, carried on cooperatively with the Zoology Laboratory of the National Institute of Health; the preparation of a conjugate of 3-n-pentadecylcatechol and albumin; a study of the nature of poison ivy antibody and antigen; a study of the enzymatic oxidation of poison ivy allergen; and an investigation of the chemistry of irritant quinones.

Statistical Investigations

Sickness among industrial workers.—The analysis of monthly reports of 8-day or longer disabilities from organizations providing sickness insurance for about 265,000 employees continued during the year, and the results were published quarterly. The 1945 male rate for all causes (147.4 absences per 1,000 males) is the highest annual rate of the 10-year period 1936–45, being 35 percent above the 10-year mean (109.2), but only 5 percent above the corresponding rate for 1944 (140.9). The 1945 female rate for all causes (257.9 absences per 1,000 females) is likewise the highest rate recorded for the 10 years, being 48 percent above the mean of 174.4 and 17 percent above the corresponding rate for 1944 (221.0).

Industrial Hygiene Foundation study.—An analysis of the 8-day or longer disability experience reported by seven member companies of the Industrial Hygiene Foundation for 1944 and 1943 revealed that the frequency of cases of sickness and nonindustrial injuries was higher in 1944 for both males and females. Among males, the frequency of nonindustrial injuries, digestive diseases, and nonrespiratory-nondigestive diseases each increased approximately one-third, while the rate for respiratory diseases was 11 percent below the epidemic rate for 1943. An examination of the disability experience of five member companies reporting continuously during 1941–44, inclusive, disclosed that the frequency of cases of sickness and nonindustrial injuries disabling for 8 days or longer tended to increase over the 4-year period.

National Safety Council study.—Health Practices Pamphlet No. 19, Illness in Industry, was prepared at the request of the Council. The pamphlet deals with the magnitude and nature of the problem of illness in industry, and with the prevention and control of illness absenteeism. Among the findings presented are the following: A host of psychological factors is important in their relation to illness in industry; monetary losses caused by ill health are dependent upon many factors related to the readjustment of work schedules of the ill worker's fellow employees; employees who are at work but lack optimum health also contribute to losses; no clear-cut line can be drawn between disabling and nondisabling illness; personal idiosyncrasy of the worker plays an important role; for the prevention and control of illness absenteeism, appropriate data should be uniformly recorded, carefully analyzed, and interpreted with caution; periodic analyses and interpretation will point to conditions requiring attention and to appropriate methods of control.

Age factor in disabling morbidity.—The disability experience of employees of a public utility company for the 5 years 1940–44 was examined in respect of a number of variables, particular attention being given to the age factor. In general the frequency of 1-day or longer absences for both males and females decreased with advancing age, but the absence duration increased, resulting in an upward trend with age in the annual number of days lost per person. The nonrespiratory-nondigestive diseases constituted the only sickness group among males revealing an upward trend with age in absence frequency.

Days lost per year.—An analysis of 1-day or longer disabilities among workers of a public utility showed for 1945 an average rate of 14.4 days lost per male per year, the corresponding rate for 1944 being 14.0; for females the rates for 1945 and 1944 were 15.1 and 15.5, respectively.

Worker health data.—Data on the health of the worker together with appropriate statistical procedures, when indicated, were discussed with representatives of governmental agencies, private foundations, industry, and other groups interested in the health of the industrial worker.

Statistical methods.—A chapter on statistical methods was prepared for a book on public health dentistry to be published under the auspices of the American Public Health Association.

Other Activities

Industrial toxicology.—Increasing interest is being manifested in the potential toxicity of a number of substances used in industry. While the more toxic common metals are frequent subjects of inquiry, reference is often made to such unusual industrial metals as columbium, osmium, platinum, silver, tungsten, and tantalum, and the range of organic substances is impressive. In the latter group, solvents and plasticizers occupy an important position, while insecticides, fungicides, and weed killers are often referred to as possible industrial hazards in their manufacture.

Phosphorus necrosis studies.—Preliminary steps were taken to arrange for the collection of pathologic material resulting from phosphorus necrosis or "phossy jaw." Plants in New York State and Alabama were visited, and bone sequestra were collected for physical, chemical, and pathologic study.

Analysis of air contaminants.—Studies were undertaken on the development of new methods for the analysis of certain air contaminants such as sulfur dioxide, and the polarographic and X-ray diffraction techniques have been stressed particularly.

Educational activities.—The personnel of the Division participated in a wide variety of educational activities, thus making available a larger supply of trained industrial hygienists and improving the standards and practices of many phases of industrial hygiene. A number of persons from the States and foreign countries received training and orientation in industrial hygiene practices at Division headquarters. Members of the Division were increasingly called on for advice by universities and other educational institutions which were interested in establishing educational opportunities for industrial nurses, engineers, dentists, and physicians. In addition, staff members have been called on to address seminars and classes at these institutions. To familiarize dermatologists, industrial physicians, and industrial hygienists with occupational dermatoses, a number of courses were given under the auspices of medical schools, medical societies, and safety conferences in various parts of the country.

Meetings.—Members of the division presented papers and participated in many meetings of national, regional, and State professional industrial hygiene organizations, notably the Industrial Health Conference in Chicago in April, in which the American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association, the National Conference of Governmental Industrial Hygienists, the American Association of Industrial Nurses, and the American Association of Industrial Dentists participated.

District Offices

During the fiscal year 1945–46, there were 11 district offices through which the Public Health Service assisted the 48 States, Puerto Rico and the Virgin Islands, Alaska, and the Territory of Hawaii, in maintaining and expanding health services.

General functions of district offices in respect to States and Territores include consultative services upon request regarding administrative and fiscal matters, general health and sanitation, communicable disease control, dental health, cancer control, public health nursing, and health education. District offices also assist in the preparation of State program plans and budgets, fiscal audits, and merit systems, and help the States in evaluating needs and making surveys. Routine responsibilities to the Public Health Service include inspection and sanitation of common carriers to combat the interstate spread of communicable diseases, and field inspections of Service hospitals, quarantine and relief stations.

During the war, district offices operated on a greatly expanded basis, providing emergency assistance to States in conducting public health activities and cooperating with the armed forces in health and sanitation matters. Through emergency health and sanitation funds and the assignment of personnel requested by State health departments, the Service assisted in preventing any serious break-down of health machinery in the United States during the war years.

During the past year, emergency health and sanitation funds were withdrawn. Personnel assigned to emergency activities were gradually released as State health departments could secure replacements. Emphasis was then placed on assisting the States to become self-sufficient so that district offices could reestablish services on a peacetime basis.

District offices cooperated in the following new programs inaugurated during the year: Surveys of postwar sanitation needs of the Nation, both rural and urban; surveys of hospital facilities; and surplus-property disposal. In cooperation with the War Shipping Administration, a comprehensive vessel sanitation program was conducted. Termination of the war brought about the additional responsibility of the medical care of repatriates, especially in districts 1 and 5.

Expansion was noted throughout the districts in tuberculosis control, malaria control, dental care programs, courses for food handlers, milk sanitation, and the separate-referral program for the control of venereal diseases. The latter was conducted in cooperation with the armed forces and State and local health departments.

In addition to those already mentioned, district offices cooperated with the following Federal agencies in conducting health and sanitation activities: Federal Works Agency, War Production Board, War Shipping Administration, Office of Labor of the Department of Agriculture, Maritime Commission, Federal Public Housing Authority, Indian Service, National Park Service, Bureau of Reclamation, Bureau of Entomology and Plant Quarantine, Bureau of Prisons, United States Forest Service, and the United States Immigration Service.

On June 30, 1946, district No. 11 with headquarters in Juneau, Alaska, was abolished and responsibility for Alaska was delegated to district No. 5.

A directory of district offices as of July 1, 1946, follows: No. 1: Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Headquarters office, Sub-Treasury Building, 15 Pine Street, New York 5, N. Y. *Medical Director E. R. Coffey, district director.*

No. 2: District of Columbia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia. Headquarters office, State-Planters Bank Building, Richmond 19, Va. *Medical Director W. K. Sharp, Jr., district director.*

No. 3: Illinois, Indiana, Kentucky, Michigan, Ohio, Wisconsin. Headquarters office, 852 United States Custom House, Chicago 7, Ill. *Medical Director F. V. Meriwether, district director.*

No. 4: Alabama, Arkansas, Georgia, Louisiana, Mississippi, Tennessee, and Florida. Headquarters office, 707 Pere Marquette Building, New Orleans 12, La. *Medical Director C. C. Applewhite, district director.*

No. 5: Alaska, Arizona, California, Nevada, Oregon, and Washington. Headquarters office, 1407 United States Appraisers Building, San Francisco 11, Calif. *Medical Director W. T. Harrison, district director.*

No. 6: Puerto Rico and the Virgin Islands. Headquarters office, San Juan 18, P. R. *Medical Director R. A. Vondelehr, district director.*

No. 7: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. Headquarters office, 417 East Thirteenth Street, Kansas City 6, Mo. *Medical Director E. F. Warner, district director.*

No. 8: Colorado, Idaho, Montana, Utah, and Wyoming. Headquarters office, 615 Colorado Building, Denver 2, Colo. *Medical Director F. T. Foard, district director.*

No. 9: New Mexico, Texas, and Oklahoma. Headquarters office, 1020 Santa Fe Building, Dallas 2, Tex. *Medical Director K. E. Miller, district director.*

No. 10: *Territory of Hawaii. Headquarters office, 233 Federal Building, Honolulu, T. H. *Medical Director R. H. Onstott, district director.*

---

*Abolished September 1, 1946, and Hawaii transferred to District No. 5.

APPENDIX

Fiscal Statement

TABLE 1.—*Statement of appropriations, obligations, and balances, fiscal year 1946*

Appropriation	Appropriated	Received by transfer and reimbursement	Reserve	Available for obligation	Expenditures		Unobligated balance
					Direct obligations	Transfer to other appropriations	
Pay, etc., commissioned officers	$4, 586, 200	[1] $281, 285. 00		$4, 867, 485. 00	$4, 428, 540. 32		$438, 944. 68
Foreign quarantine service	1, 806, 700	[2] 19, 574. 64		1, 826, 274. 64	1, 796, 699. 41		29, 575. 23
Training for nurses	59, 957, 000		29, 170	59, 927, 830. 00	38, 271, 533. 53	[3] −$15, 622, 500	6, 033, 796. 47
Control of tuberculosis	6, 047, 000			6, 047, 000. 00	6, 030, 181. 70	[4] −3, 000	13, 818. 30
Control of venereal disease	11, 949, 000	[5] 6, 678. 74	45, 000	11, 910, 678. 74	11, 546, 873. 91	[6] −356, 000	7, 804. 83
Assistance to States, general	11, 467, 000			11, 467, 000. 00	11, 432, 044. 96		34, 955. 04
Control of communicable diseases	1, 040, 000		40, 000	1, 000, 000. 00	990, 673. 82		9, 326. 18
Industrial hygiene	145, 280			145, 280. 00	144, 166. 04		1, 113. 96
Health and sanitation activities, defense areas	2, 615, 000	[7] 153, 891. 40		2, 768, 891. 40	2, 240, 447. 40	[8] −519, 568	8, 876. 00
Control of malaria and diseases of tropical origin	10, 897, 000			10, 897, 000. 00	9, 021, 249. 84	[9] −1, 862, 501	13, 249. 16
Hospital and medical care	20, 184, 500	[10] 3, 457, 705. 09		23, 642, 205. 09	23, 490, 558. 96		151, 646. 13
Operating expenses, National Institute of Health	2, 866, 000	[11] 9, 238. 16		2, 875, 238. 16	2, 865, 588. 47		9, 649. 69
Operating expenses, National Cancer Institute	548, 700			548, 700. 00	543, 898. 69		4, 801. 31
Salaries and miscellaneous expenses	1, 338, 000	[12] 2, 750. 00		1, 340. 750. 00	1, 328, 373. 37	[13] −5, 000	7, 376. 63
Postwar planning	317, 000		20, 000	297, 000. 00	291, 778. 09		5, 221. 91
Service and supply fund	250, 000	[14] 960, 057. 26		1, 210, 057. 26	1, 161, 052. 17		49, 005. 09
Control of venereal diseases (national defense)	5, 291, 000	[15] 356, 000. 00		5, 647, 000. 00	5, 639, 183. 82		7, 816. 18
Public Health Service, Philippine Islands	1, 000, 000			1, 000, 000. 00	972, 642. 78		27, 357. 22
Working capital fund		[16] 453, 013. 57	113, 200	339, 813. 57	246, 547. 50		93, 266. 07
Operation of commissaries, division of mental hygiene		[17] 64, 124. 79	3, 900	60, 224. 79	52, 571. 64		7, 653. 15
Total	142, 305, 380	5, 764, 318. 65	251, 270	147, 818, 428. 65	122, 494, 606. 42	18, 368, 569	6, 955, 253. 23

---

[1] $106,883 from Justice; $8,034 from Agriculture; $28,760 from Vocational Rehabilitation; $66,467 from War Shipping; $45,517 from UNRRA; $25,624 from Pan American.

[2] $582.90 from Coast Guard; $13,779.56 from War Food Administration; $1,513.22 from War Manpower; $3,698.96 for fumigation.

[3] $15,622.500 returned to surplus.

[4] $3,000 transferred to Federal Security Agency.

[5] $6,678.74 from Agriculture.

[6] $356,000 transferred to Control of Venereal Disease (National Defense) PHS.

[7] $3,708.72 transferred from war contributions fund; $11,329.57 from War Department; $82,279.53 from Department of Agriculture; $4,788.91 from Federal Housing; $3,896.89 from Office of War Information; $1,530.86 from War Production Board; $3,816.53 from Office of Emergency Management; $222.93 from Foreign Economic Administration; $309.87 from Office of Strategic Services; $32,441.70 from Federal Works Agency; $5,170.70 from State Department; $953.54 from Office of Scientific Research; $3,441.65 miscellaneous.

[8] $2,000 transferred to Federal Security Agency; $517,568 returned to surplus.

[9] $1,862,501 returned to surplus.

[10] $1,794,058.04, Veterans; $138,720.07, Immigration and Naturalization; $217,442.28, Foreign Seamen; $57,460.95, Coast Guard; $43,332.24, Employees' Compensation Commission; $87,214.25, Emergency Medical Section; $19,432, Army; $1,356, Office of War Information; $8,180.22, Office of Vocational Rehabilitation; $365, Panama Canal; $2,284, War Food; $41,639.75, Public Buildings Administration; $14,314.33, Interior; $2,374.59, Commerce; $3,325.60, Bureau of Standards; $6,518.38, Treasury; $5,339.96, Labor; $1,951.89, Bureau of the Budget, $7,777.66, Federal Works Agency; $7,785.87, Reconstruction Finance Corp.; $1,168.33, Government Information Service; $1,375.60, Office of Price Administration; $2,168.67, Juvenile Court; $978,241.55, St. Elizabeths; $13,878.67, miscellaneous.

[11] $940.20 from Bureau of Mines; $4,217.56 from Navy; $4,080.40 from Agriculture.

[12] $2,750 from Freedmen's Hospital.

[13] $5,000 transferred to Federal Security Agency.

[14] $960,057.26 repayments for sales of supplies and equipment.

[15] $356,000 from control of venereal diseases, PHS.

[16] $190,809.44 balance July 1, 1945; $262,204.13 earnings.

[17] $14,743.31 balance July 1, 1945; $49,381.48 earnings.

TABLE 2.—*Funds made available from other sources, fiscal year 1946*

	Available	Direct obligations	Transfers	Balance
Printing and binding	172,000.00	169,912.05		2,087.95
Traveling expenses	[1] 995,723.86	944,929.52		50,794.34
Medical and hospital service, penal institutions	1,077,295.00	1,056,483.39		20,811.61
Cooperation with American republics	162,300.00	134,383.25		27,916.75
Maritime training fund	1,186,000.00	725,962.98	[2] 376,000	84,037.02
Surplus property board	30,000.00	28,400.99		1,599.01
UNRRA	1,049,951.36	945,418.62		104,532.74
Defense aid	305,516.98	58,572.41	[3] 240,000	6,944.57
Working fund, F. S. A	428,098.63	423,995.39		4,103.24
Total	5,406,885.83	4,488,058.60	616,000	302,827.23

[1] $991,500 from Federal Security Agency; $1,568.89 from War Manpower Commission; $2,654.97 from Agriculture.

[2] $376,000 returned to War Shipping Administration.

[3] $240,000 returned to State Department.

TABLE 3.—*Allocations from Federal Security Agency, fiscal year 1946*

	Available	Direct obligations	Transfers	Balance
Emergency fund for the President	541,012.57	451,239.37		89,773.20
Surplus property	486,135.00	481,369.74		4,765.26

TABLE 4.—*Miscellaneous receipts*

Source	Amount
General and special accounts:	
Revenue receipts:	
Fees: Commissions on telephone pay stations in Federal buildings outside Washington, D. C	$13,642.27
Interest, exchange, and dividends:	
Interest on deferred collections or payments	6.82
Interest on public deposits	1,219.34
Permits, privileges, and licenses: Business concessions	7,682.00
Reimbursements:	
Government property lost or damaged	2,539.35
Hospitalization charges and expenses	22,234.75
Jury services	21.00
Refund on empty containers	300.61
Other	1,501.26
Rents and royalties: Rent of public buildings and grounds	45.00
Sales of Government property products:	
Livestock and livestock products	29,739.48
Occupational therapy products	578.44
Scrap and salvaged materials, waste paper, refuse, etc	8,480.69
Subsistence	107,618.69
Sales of services:	
Quarantine charges	110,229.62
Quarters	563.00
Nonrevenue receipts: Equipment	922.64
Total	307,324.96

Personnel

TABLE 5.—*Civil Service personnel report, as of June 30, 1946*

	Total	District of Columbia area	Elsewhere
Office of the Surgeon General:			
Office of the executive assistant	206	192	14
Budget and fiscal office	148	148	---
Division of commissioned officers	41	41	---
Division of Public Health methods	111	92	19
Division of Nurse Education	99	47	52
Dental Division	5	5	---
Sanitary Engineering Division	66	56	10
International Health Relations	4	4	---
National Institute of Health	615	492	123
National Cancer Institute	139	136	3
Bureau of medical services:			
Foreign Quarantine Division	586	20	566
Hospital Division	6,056	210	5,846
Mental Hygiene Division	783	22	761
Medical care services for other Governmental agencies	353	14	339
Bureau of State services:			
State Relations Division	3,545	315	3,230
Tuberculosis Control Division	214	176	38
Venereal Disease Division	1,190	205	985
Industrial Hygiene Division	26	24	2
Total	14,187	2,199	11,988

Medical Relief Activities, Hospital Division, Bureau of Medical Services

TABLE 6.—*Volume of medical service by type of station, fiscal year 1946*

Station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1946	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
Marine Hospitals [1]	409,422	103,777	1,595	5,545	2,290,248	305,645	938,995	109,616
Second-class stations [2]	171,727	5,057	33	139	55,880	166,670	559,817	73,370
Third-class stations	35,033	2,708	40	41	22,611	32,325	64,574	17,995
Fourth-class stations	43	22	2	1	200	21	23	---
Coast Guard vessels and bases [3]	132,272	3,802	---	8	24,321	128,470	340,410	33,114
Special acting assistant surgeons for Coast Guard and Coast and Geodetic Survey	3,438	59	---	---	1,159	3,379	7,317	398
Motorized dental stations [3]	3,946	---	---	---	---	3,946	17,793	---
U. S. Army hospitals	1,103	1,103	4	---	20,528	---	---	---
Veterans' facilities	5	3	---	---	11	2	2	---
Employees' health units, Treasury Department and U. S. Public Health Service	71,185	---	---	---	---	71,185	122,511	2,019
Employees' health units, other agencies	22,618	---	---	---	---	22,618	46,491	1
Other	278	125	---	---	1,015	153	396	1,929
Total	851,070	116,656	1,674	5,734	2,415,973	734,414	2,098,329	238,442

[1] The Sheepshead Bay Hospital, formerly owned by the War Shipping Administration and listed separately, is included with Marine Hospitals in fiscal year 1946.

[2] The Public Health Dispensary at Hudson and Jay Streets, New York City, previously included with Marine Hospitals, is included with second-class stations in fiscal year 1946.

[3] Volume of relief understated due to incomplete reports.

TABLE 7.—*Volume of medical services for various classes of beneficiaries by type of station, fiscal year 1946*

Beneficiary class of station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1946	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
American merchant seamen:								
Marine Hospitals	191, 803	38, 910	671	2, 701	966, 472	152, 893	434, 937	54, 173
Other relief stations	134, 113	5, 395	58	123	52, 090	128, 718	358, 050	28, 118
U. S. Army hospitals	955	955	4	--------	18, 753	--------	--------	--------
Veterans' facilities	--------	--------	--------	--------	--------	--------	--------	--------
Emergency	3	2	--------	--------	16	1	40	--------
Total	326, 874	45, 262	733	2, 824	1, 037, 331	281, 612	793, 027	82, 291
Coast Guard:								
Marine Hospitals	61, 712	18, 908	44	464	341, 582	42, 804	130, 305	3, 742
Other relief stations	13, 524	530	1	5	4, 000	12, 994	36, 758	3, 393
Special acting assistant surgeons	3, 419	59	--------	--------	1, 159	3, 360	7, 284	396
Coast Guard vessels and bases [1]	121, 660	3, 669	--------	7	23, 086	117, 991	311, 502	32, 181
U. S. Army hospitals	143	143	--------	--------	1, 746	--------	--------	--------
Veterans' facilities	5	3	--------	--------	11	2	2	--------
Motorized dental stations [1]	3, 803	--------	--------	--------	--------	3, 803	17, 161	--------
Emergency	257	106	--------	--------	694	151	353	1, 929
Total	204, 523	23, 418	45	476	372, 278	181, 105	503, 365	41, 641
Coast Guard dependents:								
Marine Hospitals	14, 511	2, 741	32	47	30, 346	11, 770	52, 344	20
Other relief stations	3, 277	--------	--------	--------	--------	3, 277	14, 055	156
Coast Guard vessels and bases [1]	7, 159	120	--------	1	1, 162	7, 039	22, 411	176
Motorized dental stations [1]	139	--------	--------	--------	--------	139	620	--------
Total	25, 086	2, 861	32	48	31, 508	22, 225	89, 430	352
Coast and Geodetic Survey personnel:								
Marine Hospitals	491	80	2	3	1, 229	411	1, 460	197
Other relief stations	217	--------	--------	--------	--------	217	764	54
Special acting assistant surgeons	1	--------	--------	--------	--------	1	1	2
U. S. Army hospitals	--------	--------	--------	--------	--------	--------	--------	--------
Total	709	80	2	3	1, 229	629	2, 225	253
Coast and Geodetic Survey dependents:								
Marine Hospitals	330	59	1	3	530	271	996	--------
Other relief stations	121	--------	--------	--------	--------	121	805	1
Total	451	59	1	3	530	392	1, 801	1
Seamen, Engineer Corps, and Army Transport Service:								
Marine Hospitals	10, 576	2, 647	37	141	62, 155	7, 929	25, 190	259
Other relief stations	4, 248	313	4	9	3, 157	3, 935	8, 157	198
Total	14, 824	2, 960	41	150	65, 312	11, 864	33, 347	457
Seamen, not enlisted or commissioned, from other Government vessels:								
Marine Hospitals	573	114	4	1	2, 267	459	1, 483	--------
Other relief stations	225	3	--------	--------	5	222	264	178
Total	798	117	4	1	2, 272	681	1, 747	178
Seamen from foreign vessels:								
Marine Hospitals	4, 931	2, 348	16	110	43, 002	2, 583	5, 566	1
Other relief stations	1, 014	95	--------	4	1, 092	919	2, 594	22
Total	5, 945	2, 443	16	114	44, 094	3, 502	8, 160	23

See footnote at end of table.

TABLE 7.—*Volume of medical services for various classes of beneficiaries by type of station, fiscal 1946*—Continued

Station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1946	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
Public Health Service officers and employees:								
Marine Hospitals	22,707	2,317	20	66	33,947	20,390	78,660	2,895
Other relief stations	5,186	20	--------	--------	94	5,166	26,743	698
Special acting assistant surgeons	18	--------	--------	--------	--------	18	32	--------
Coast Guard vessels and bases [1]	120	11	--------	--------	53	109	442	15
Motorized dental stations [1]	4	--------	--------	--------	--------	4	12	--------
U. S. Army hospitals	5	5	--------	--------	29	--------	--------	--------
Total	28,040	2,353	20	66	34,123	25,687	105,889	3,608
Public Health Service dependents:								
Marine Hospitals	1,339	291	2	16	3,731	1,048	3,950	14
Other relief stations	11	--------	--------	--------	--------	11	24	--------
Coast Guard vessels and bases	5	2	--------	--------	20	3	4	--------
Total	1,355	293	2	16	3,751	1,062	3,978	14
Persons afflicted with leprosy:								
Marine Hospitals	462	450	17	373	135,820	12	44	--------
Other relief stations	--------	--------	--------	--------	--------	--------	--------	--------
Total	462	450	17	373	135,820	12	44	--------
Employees' Compensation Commission:								
Marine Hospitals	30,360	7,928	35	419	161,770	22,432	77,926	16,451
Other relief stations	25,631	1,328	10	38	17,054	24,303	131,199	11,158
Coast Guard vessels and bases [1]	3,328	--------	--------	--------	--------	3,328	6,051	742
Total	59,319	9,256	45	457	178,824	50,063	215,176	28,351
Immigrants and alien seamen:								
Marine Hospitals	9,111	2,074	7	87	33,575	7,037	12,566	1,375
Other relief stations	149	50	--------	2	669	99	143	4,246
Total	9,260	2,124	7	89	34,244	7,136	12,709	5,621
Army and Selective Service:								
Marine Hospitals	2,027	932	--------	26	5,641	1,095	2,233	4
Other relief stations	130	4	1	--------	48	126	314	8
Total	2,157	936	1	26	5,689	1,221	2,547	12
Navy and Marine Corps:								
Marine Hospitals	4,648	1,720	6	33	19,644	2,928	7,803	47
Other relief stations	317	20	--------	--------	179	297	445	15
Total	4,965	1,740	6	33	19,823	3,225	8,248	62
Veterans' Administration:								
Marine Hospitals	17,015	16,130	633	917	347,669	885	3,499	4,136
Other relief stations	354	16	--------	--------	205	338	894	49
Total	17,369	16,146	633	917	347,874	1,223	4,393	4,185
Work Projects Administration:								
Marine Hospitals	196	143	--------	14	4,417	53	170	43
Other relief stations	8	2	1	--------	12	6	88	5
Total	204	145	1	14	4,429	59	258	48
National Youth Administration:								
Marine Hospitals	3	3	--------	1	215	--------	--------	1
Other relief stations	--------	--------	--------	--------	--------	--------	--------	--------
Total	3	3	--------	1	215	--------	--------	1

See footnote at end of table.

TABLE 7.—*Volume of medical services for various classes of beneficiaries by type of station, fiscal 1946*—Continued

Station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1946	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
Former enrollees, Civilian Conservation Corps:								
Marine Hospitals	29	24			455	5	11	9
Other relief stations								
Total	29	24			455	5	11	9
Maritime Service:								
Marine Hospitals	23, 104	3, 405	6	27	50, 212	19, 699	73, 380	504
Other relief stations	1, 022	9			67	1, 013	2, 449	260
Emergency	17	17			305			
Total	24, 143	3, 431	6	27	50, 584	20, 712	75, 829	764
Mariners for licenses:								
Marine Hospitals								10, 979
Other relief stations								18, 257
Total								29, 236
Federal employees for other purposes:								
Marine Hospitals								6, 096
Other relief stations								12, 376
Total								18, 472
Miscellaneous:								
Marine Hospitals	13, 494	2, 553	62	96	45, 569	10, 941	26, 472	8, 670
Other relief stations	17, 256	2			19	17, 254	40, 668	12, 173
Employees' health units, Treasury Department and emergency room, Public Health Service building	71, 185					71, 185	122, 511	2, 019
Employees' health units, other agencies	22, 618					22, 618	46, 491	1
Emergency	1					1	3	
Total	124, 554	2, 555	62	96	45, 588	121, 999	236, 145	22, 863
Totals:								
Marine Hospitals	409, 422	103, 777	1, 595	5, 545	2, 290, 248	305, 645	938, 995	109, 616
Other relief stations	206, 803	7, 787	75	181	78, 691	199, 016	624, 414	91, 365
Special acting assistant surgeons	3, 438	59			1, 159	3, 379	7, 317	398
Coast Guard vessels and bases [1]	132, 272	3, 802		8	24, 321	128, 470	340, 410	33, 114
U. S. Army hospitals	1, 103	1, 103	4		20, 528			
Veterans' facilities	5	3			11	2	2	
Motorized dental stations [1]	3, 946					3, 946	17, 793	
Employees' health units, Treasury Department and emergency room, Public Health Service building	71, 185					71, 185	122, 511	2, 019
Employees' health units, other agencies	22, 618					22, 618	46, 491	1
Emergency	278	125			1, 015	153	396	1, 929
Total	851, 070	116, 656	1, 674	5, 734	2, 415, 973	734, 414	2, 098, 329	238, 442

[1] Volume of relief understated due to incomplete reports.

TABLE 8.—*Medical services furnished by U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal years 1912–46* [1]

Fiscal year	Marine Hospitals						Medical relief stations			
	In-patient admissions	Hospital days	Average daily in-patient load	Average length of stay	Out-patient treatments	Physical examinations	In-patient admissions	Hospital days	Out-patient treatments	Physical examinations
1912	9, 125	348, 710	952. 8	37. 9	33, 202	5, 634	4, 449	74, 833	27, 756	4, 630
1913	8, 519	316, 835	868. 0	37. 1	35, 081	5, 609	4, 664	72, 134	25, 618	4, 362
1914	9, 092	322, 779	884. 3	35. 7	36, 751	4, 220	4, 436	70, 686	27, 115	3, 618
1915	9, 091	352, 018	964. 4	38. 8	40, 285	3, 872	4, 199	68, 098	27, 308	3, 058
1916	9, 406	378, 341	1, 033. 7	40. 3	38, 349	25, 368	4, 919	61, 639	31, 374	12, 228
1917	10, 395	391, 172	1, 071. 7	37. 6	42, 919	17, 800	5, 651	87, 157	55, 338	10, 211
1918	11, 867	415, 465	1, 138. 3	35. 5	36, 789	18, 257	6, 064	88, 887	37, 223	11, 207
1919 [2]	23, 992	589, 719	1, 615. 7	24. 9	55, 514	21, 564	10, 099	128, 460	42, 773	19, 084
1920 [2]	25, 521	708, 513	1, 935. 8	27. 8	105, 023	34, 659	11, 011	185, 092	116, 208	66, 806
1921 [2]	24, 722	771, 000	2, 112. 3	31. 4	145, 447	60, 148	12, 566	258, 293	160, 187	106, 801
1922 [2]	31, 136	995, 227	2, 726. 6	32. 0	151, 056	61, 308	9, 632	231, 378	183, 118	110, 872
1923	29, 031	997, 996	2, 734. 2	34. 4	122, 653	27, 619	7, 052	148, 981	162, 023	48, 491
1924	30, 280	1, 032, 977	2, 822. 3	34. 3	156, 318	29, 210	7, 735	157, 147	212, 067	31, 210
1925	32, 077	1, 144, 482	3, 135. 6	35. 8	186, 919	31, 010	7, 652	152, 716	233, 315	41, 705
1926	31, 571	1, 150, 785	3, 152. 8	36. 5	213, 960	33, 179	6, 870	129, 499	256, 398	51, 898
1927	31, 068	1, 145, 324	3, 137. 9	36. 8	230, 411	39, 511	6, 451	94, 506	254, 434	53, 251
1928	30, 693	1, 210, 570	3, 307. 6	39. 7	266, 024	38, 034	6, 708	97, 544	258, 585	57, 500
1929	32, 523	1, 311, 067	3, 592. 0	40. 5	295, 816	41, 052	7, 654	102, 340	305, 328	65, 404
1930	35, 080	1, 394, 233	3, 819. 8	39. 9	342, 474	37, 745	7, 394	105, 076	375, 058	71, 755
1931	35, 055	1, 507, 787	4, 130. 9	43. 1	375, 761	31, 417	7, 418	108, 518	390, 649	57, 186
1932	33, 927	1, 584, 222	4, 328. 5	47. 0	426, 436	27, 855	6, 455	95, 897	398, 138	43, 326
1933	33, 353	1, 621, 579	4, 442. 7	48. 0	463, 509	28, 068	5, 887	82, 609	428, 136	29, 902
1934	33, 394	1, 504, 600	4, 122. 2	45. 4	429, 104	35, 449	4, 902	61, 620	474, 372	44, 278
1935	39, 385	1, 681, 548	4, 607. 0	42. 6	462, 657	34, 083	4, 702	56, 989	471, 915	51, 685
1936	44, 687	1, 787, 747	4, 884. 6	40. 3	526, 346	49, 233	4, 720	54, 546	476, 036	58, 056
1937	48, 866	1, 916, 711	5, 251. 3	39. 3	580, 153	82, 840	5, 176	59, 866	505, 109	75, 905
1938	49, 869	1, 876, 414	5, 140. 9	37. 6	641, 876	77, 096	4, 955	60, 952	523, 971	85, 455
1939	54, 472	1, 902, 113	5, 211. 3	34. 9	559, 243	94, 873	5, 283	61, 249	559, 741	98, 504
1940	58, 356	1, 899, 184	5, 189. 0	32. 6	548, 778	98, 399	6, 044	67, 022	578, 919	106, 062
1941	65, 044	1, 991, 508	5, 456. 2	30. 6	530, 430	94, 369	6, 531	72, 458	544, 012	121, 587
1942	68, 689	1, 972, 470	5, 404. 0	28. 8	565, 518	99, 794	7, 014	75, 961	555, 715	142, 822
1943	87, 945	2, 116, 347	5, 798. 2	24. 1	692, 273	107, 945	8, 684	80, 948	648, 298	133, 201
1944	94, 670	2, 197, 593	6, 004. 4	23. 2	742, 785	101, 257	7, 518	75, 315	631, 225	90, 093
1945	99, 743	2, 286, 231	6, 263. 6	23. 0	856, 845	118, 272	8, 698	87, 772	715, 721	101, 393
1946	97, 375	2, 290, 248	6, 274. 7	23. 4	938, 995	109, 616	7, 522	78, 691	624, 414	91, 365

[1] Includes contract overflow facilities of Marine Hospitals.

[2] U. S. Public Health Service Veterans' facilities operated from 1919–22 and then transferred to Veterans' Administration are not included.

TABLE 9.—*Transactions at U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal year 1946*

Hospital or medical relief station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1946	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
FIRST-CLASS STATIONS								
Marine Hospitals								
Baltimore, Md	34, 377	8, 422	147	426	157, 169	25, 955	96, 659	12, 187
Boston, Mass	28, 500	6, 044	58	295	128, 719	22, 456	55, 865	12, 486
Buffalo, N. Y	6, 119	1, 398	22	50	18, 610	4, 721	16, 463	2, 663
Carville, La	3, 552	439	17	372	135, 595	3, 113	6, 310	96
Chicago, Ill	9, 844	2, 716	30	138	62, 262	7, 128	27, 839	5, 556
Cleveland, Ohio	10, 325	3, 746	60	216	93, 581	6, 579	23, 861	4, 145
Detroit, Mich	9, 388	4, 114	88	220	92, 889	5, 274	18, 718	5, 667
Ellis Island, N. Y	13, 322	4, 512	30	283	107, 660	8, 810	16, 204	799
Evansville, Ind	1, 876	1, 028	22	32	15, 284	848	1, 280	989
Fort Stanton, N. Mex	1, 998	392	29	167	60, 909	1, 606	5, 240	88
Galveston, Tex	16, 830	3, 579	69	170	59, 979	13, 251	27, 809	12, 405
Kirkwood, Mo	5, 537	1, 594	9	76	33, 112	3, 943	18, 392	2, 409
Louisville, Ky	4, 695	2, 286	94	24	40, 640	2, 409	8, 169	3, 315
Memphis, Tenn	3, 409	1, 546	9	86	33, 683	1, 863	5, 995	1, 446
Mobile, Ala	13, 897	2, 430	46	125	47, 403	11, 467	30, 482	2, 736
Neponsit Beach, N. Y	633	290	5	170	46, 954	343	971	213
New Orleans, La	29, 546	6. 868	150	319	141, 510	22, 478	74, 221	7, 575
Norfolk, Va	22, 339	6, 424	79	260	110, 830	15, 915	53. 384	5, 912
Pittsburgh, Pa	5, 556	1, 140	7	47	18, 213	4. 416	13, 244	1, 188
Portland, Maine	4, 617	1, 365	12	67	20, 521	3, 252	10, 872	142
San Francisco, Calif	41, 491	8, 947	145	418	171, 123	32, 544	108, 330	21, 020
San Juan, P. R	6, 055	1, 340	7	68	28, 050	4, 715	13, 262	1, 950
Savannah, Ga	7, 502	2, 564	55	138	48, 656	4, 938	14, 269	1, 331
Seattle, Wash	27. 117	7, 480	169	379	151, 873	19, 637	55, 532	1, 985
Sheepshead Bay, N. Y.[1]	32, 089	4, 332	2	------	64, 658	27, 757	108, 409	367
Staten Island, N. Y	67, 142	18, 055	226	895	361, 461	49, 087	122, 512	862
Vineyard Haven, Mass	1, 554	414	4	22	7, 200	1, 140	4, 703	84
Contract overflow hospitals	312	312	4	82	31, 704	------	------	------
Total	409, 422	103, 777	1, 595	5, 545	2,290,248	305, 645	938, 995	109, 616
SECOND- AND THIRD-CLASS STATIONS								
Aberdeen, Wash	543	32	1	------	127	511	863	43
Albany, N. Y	101	10	------	------	82	91	135	429
Alpena, Mich	48	3	------	------	15	45	63	4
Anacortes, Wash	116	7	------	------	46	109	217	17
Apalachicola, Fla	41	------	------	------	------	41	97	10
Ashland, Wis	171	36	1	------	244	135	255	------
Ashtabula, Ohio	270	22	------	------	117	248	618	55
Astoria, Oreg	392	20	1	------	176	372	1, 315	53
Balboa Heights, C. Z	19, 190	1, 427	4	33	16, 786	17, 763	21, 437	23
Bangor, Maine	15	1	------	------	10	14	18	27
Bath, Maine	162	------	------	------	------	162	244	------
Bay City, Mich	91	13	------	------	45	78	93	1
Beaufort, N. C	121	------	------	------	------	121	310	20
Bellingham, Wash	166	27	------	------	100	139	230	1
Biloxi, Miss	36	1	------	------	15	35	55	16
Brunswick, Ga	15	------	------	------	------	15	95	12
Burlington, Iowa	69	27	------	------	126	42	74	38
Cairo, Ill	610	97	3	1	469	513	998	75
Calais, Maine	1	------	------	------	------	1	1	------
Cambridge, Md	48	4	1	------	15	44	110	18
Cape May, N. J	327	------	------	------	------	327	665	4
Charleston, S. C	5, 281	89	------	------	670	5, 192	7, 843	7, 468
Charlotte Amalie, V. I	382	9	------	------	60	373	1, 233	49
Cincinnati, Ohio	466	12	------	------	159	454	561	271
Coos Bay, Oreg	330	49	------	1	381	281	358	33
Cordova, Alaska	312	73	------	------	935	239	340	8
Corpus Christi, Tex	576	102	------	1	497	474	690	426
Crisfield, Md	205	2	------	------	22	203	870	39
Duluth, Minn	2, 696	150	1	4	1, 601	2, 546	4, 415	1, 368
Edenton, N. C	14	------	------	------	------	14	29	1
Elizabeth City, N. C	122	------	------	------	------	122	167	29
El Paso, Tex	131	7	------	------	91	124	280	195
Erie, Pa	357	20	------	------	127	337	965	109
Escanaba, Mich	66	7	------	------	68	59	68	7
Eureka, Calif	268	45	------	------	222	223	405	17
Fall River, Mass	258	31	------	1	254	227	533	14
Frankfort, Mich	3	1	------	------	9	2	4	2
Gallipolis, Ohio	265	20	------	1	171	245	628	131
Gary, Ind	106	7	------	------	15	99	130	54
Gloucester, Mass	253	11	------	1	55	242	629	3
Grand Haven, Mass	187	10	------	------	95	177	329	182

[1] The Sheepshead Bay Hospital, formerly owned by the War Shipping Administration, was operated as a Marine Hospital in fiscal year 1946.

TABLE 9.—*Transactions at U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal year 1946*—Continued

Beneficiary class of station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1946	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
SECOND AND THIRD-CLASS STATIONS—Continued								
Green Bay, Wis	124	15	--------	--------	127	109	129	11
Gulfport, Miss	93	1	--------	--------	12	92	240	14
Honolulu, T. H	6, 710	627	5	26	7, 219	6, 083	13, 196	2, 142
Houghton, Mich	71	15	1	--------	271	56	56	12
Houston, Tex	3, 855	54	1	--------	266	3, 801	5, 730	1, 859
Indiana Harbor, Ind	231	1	--------	--------	1	230	302	21
Jacksonville, Fla	1, 163	60	--------	1	403	1, 103	2, 835	2, 671
Juneau, Alaska	746	72	4	1	549	674	1, 502	65
Ketchikan, Alaska	754	74	2	2	1, 125	680	1, 005	77
Key West, Fla	84	--------	--------	--------	--------	84	168	--------
Kilmarnok, Va	613	--------	--------	--------	--------	613	3, 105	11
La Crosse, Wis	51	2	--------	--------	9	49	82	20
Lewes, Del	556	89	1	2	1, 075	467	747	16
Los Angeles, Calif	8, 282	426	1	19	5, 143	7, 856	23, 239	6, 556
Ludington, Mich	260	31	3	--------	286	229	411	513
Machias, Maine	54	--------	--------	--------	--------	54	126	--------
Manistee, Mich	69	3	--------	--------	11	66	340	22
Manitowoc, Wis	246	39	--------	--------	240	207	470	6
Marquette, Mich	94	12	--------	--------	107	82	149	6
Menominee, Mich	113	4	--------	1	64	109	183	25
Miami, Fla	5, 667	309	1	5	3, 632	5, 358	12, 874	1, 633
Milwaukee, Wis	1, 640	153	2	2	2, 301	1, 487	2, 864	2, 385
Morehead City, N. C	734	61	--------	1	552	673	1, 834	47
Nashville, Tenn	19	--------	--------	--------	--------	19	33	379
Natchez, Miss	226	11	--------	--------	71	215	482	11
New Bedford, Mass	331	46	1	1	335	285	513	44
New Bern, N. C	138	13	--------	--------	51	125	218	3
New Haven, Conn	168	20	2	--------	157	148	220	163
New London, Conn	176	56	4	3	545	120	218	230
Newport, Oreg	163	11	--------	--------	69	152	247	4
Newport, R. I	146	3	--------	--------	16	143	251	4
Newport News, Va	584	--------	--------	--------	--------	584	733	1
New York, N.Y. (Hudson St.)	78, 087	--------	--------	--------	--------	78, 087	299, 158	13, 858
Ogdensburg, N. Y	78	3	--------	--------	16	75	129	21
Olympia, Wash	19	--------	--------	--------	--------	19	19	--------
Oswego, N. Y	98	2	--------	--------	10	96	165	128
Paducah, Ky	1, 247	17	--------	--------	173	1, 230	3, 212	163
Panama City, Fla	207	4	--------	--------	31	203	485	361
Pensacola, Fla	1, 126	34	1	--------	153	1, 092	2, 180	340
Perth Amboy, N. J	57	33	--------	--------	42	24	43	36
Petersburg, Alaska	134	12	1	1	122	122	457	1
Philadelphia, Pa	12, 762	874	6	20	7, 549	11, 888	38, 536	7, 542
Ponce, P. R	290	59	--------	3	595	231	375	19
Port Angeles, Wash	103	15	--------	--------	57	88	104	--------
Port Arthur, Tex	2, 782	60	--------	--------	259	2, 722	5, 935	2, 620
Port Huron, Mich	326	20	1	--------	67	306	782	174
Portland, Oreg	5, 538	404	5	9	4, 968	5, 134	17, 799	6, 830
Port Townsend, Wash	276	--------	--------	--------	--------	276	500	11
Providence, R. I	601	64	--------	1	634	537	1, 195	2, 143
Provincetown, Mass	570	--------	--------	--------	--------	570	1, 508	19
Reedville, Va	299	--------	--------	--------	--------	299	926	8
Richmond, Va	68	3	--------	1	34	65	164	42
San Diego, Calif	612	74	--------	6	1, 099	538	2, 023	596
Sandusky, Ohio	102	20	--------	--------	114	82	121	68
San Pedro, Calif	7, 254	226	6	3	2, 098	7, 028	19, 164	4, 045
Sault Ste. Marie, Mich	540	195	1	5	1, 165	345	581	165
Seward, Alaska	460	98	--------	1	817	362	619	--------
South Bend, Wash	4	1	--------	--------	2	3	3	--------
Southport, N. C	1, 355	79	--------	--------	841	1, 276	1, 474	--------
Sheboygan, Wis	81	4	--------	--------	44	77	165	10
Superior, Wis	385	35	--------	--------	258	350	432	19
Tacoma, Wash	279	20	1	1	104	259	446	35
Tampa, Fla	961	133	2	3	1, 155	828	1, 730	1, 024
Toledo, Ohio	632	85	2	--------	805	547	999	585
Vicksburg, Miss	391	17	--------	--------	46	374	1, 002	12
Washington, D. C	19, 431	534	5	18	6, 366	18, 897	98, 333	19, 862
Washington, N. C	52	4	--------	--------	49	48	56	14
Wilmington, N. C	461	31	1	--------	167	430	451	409
Wrangell, Alaska	120	25	1	1	209	95	248	2
FOURTH-CLASS STATIONS								
Bridgeport, Conn	17	12	1	1	89	5	5	--------
Nome, Alaska	--------	--------	--------	--------	--------	--------	--------	--------
Portsmouth, N. H	--------	--------	--------	--------	--------	--------	--------	--------
Wilmington, Del	26	10	1	--------	111	16	18	--------
Total	206, 803	7, 787	75	181	78, 691	199, 016	624, 414	91, 365
Grand total	616, 225	111, 564	1, 670	5, 726	2,368,939	504, 661	1,563,409	200, 981

TABLE 10.—*Distribution of medical services by class of beneficiary, U. S. Marine Hospitals,*[1] *fiscal year 1946*

Class of beneficiary	Hospital days		Out-patient treatments		Physical examinations (not related to treatment)	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
American merchant seamen	941,430	41.68	434,937	46.32	54,173	49.42
Coast Guard personnel	338,911	15.01	130,305	13.88	3,742	3.42
Coast Guard dependents	30,346	1.34	52,344	5.57	20	.02
Coast and Geodetic Survey personnel	1,229	.06	1,460	.16	197	.18
Coast and Geodetic Survey dependents	530	.02	996	.11		
Seamen, Engineer Corps, and Army Transport Service	59,843	2.65	25,190	2.68	259	.24
Seamen, not enlisted or commissioned, from other Government vessels	2,267	.10	1,483	.16		
Seamen from foreign vessels	43,002	1.90	5,566	.59	1	(2)
Public Health Service officers and employees	33,947	1.50	78,660	8.38	2,895	2.64
Public Health Service dependents	3,731	.17	3,950	.42	14	.01
Persons afflicted with leprosy	135,820	6.01	44	(2)		
Employees' Compensation Commission	161,255	7.14	77,926	8.30	16,451	15.01
Immigrants and alien seamen	33,575	1.49	12,566	1.34	1,375	1.26
Army and Selective Service	5,641	.25	2,233	.24	4	(2)
Navy and Marine Corps	19,644	.87	7,803	.83	47	.04
Veterans' Administration	347,669	15.39	3,499	.37	4,136	3.77
Work Projects Administration	4,417	.20	170	.02	43	.04
Maritime Service	49,942	2.21	73,380	7.81	504	.46
Mariners for licenses					10,979	10.02
Federal employees for other purposes					6,096	5.56
All others entitled to treatment	45,345	2.01	26,483	2.82	8,680	7.91
Total	2,258,544	100.00	938,995	100.00	109,616	100.00

[1] Does not include contract overflow facilities of Marine Hospitals, which furnished a total of 31,704 days of hospital relief, as follows: To American merchant seamen, 25,042; to Coast Guard personnel, 2,671; to Seamen, Engineer Corps, and Army Transport Service, 2,312; to Employees' Compensation Commission, 515; to Maritime Service, 270; to all others, 894.

[2] Number less than 1/100 of 1 percent.

TABLE 11.—*Medical services furnished Coast Guard, fiscal years 1923–46*[1]

Fiscal year	Numerical strength of Coast Guard and medical services given				Average amount of medical service per Coast Guardsman		
	Number of Coast Guard personnel[2]	Hospital days furnished	Out-patient treatments furnished	Physical examinations	Hospital days	Out-patient treatments	Physical examinations
1923	4,684	41,681	32,530	4,207	8.9	6.7	.9
1924	4,896	36,504	45,857	7,008	7.6	9.4	1.5
1925	7,077	60,336	90,494	13,394	8.5	12.8	1.9
1926	9,839	71,799	125,226	19,061	7.3	12.7	1.9
1927	10,984	76,564	155,977	18.787	6.9	14.2	1.7
1928	12,462	85,691	137,971	17,220	6.9	11.0	1.4
1929	12,833	88,870	169,697	17,748	6.9	13.2	1.4
1930	12,963	90,179	196,334	14,382	6.9	15.1	1.1
1931	13,020	86,829	187,063	8,262	6.7	14.4	.6
1932	13,189	91,655	198,800	11,481	6.9	15.1	.9
1933	13,181	106,126	214,805	9,557	8.0	16.3	.7
1934	10,401	88,896	172,510	6,367	8.5	16.6	.6
1935	9,413	80,195	151,744	8,966	8.5	16.1	.9
1936	10,748	88,325	130,206	5,149	8.2	21.1	.5
1937	10,325	91,590	141,939	6,437	8.9	13.7	.6
1938	10,014	84,784	121,849	8,234	8.5	12.2	.8
1939	11,566	89,456	103,189	5,581	7.7	8.9	.5
1940	13,787	121,249	158,389	15,489	8.8	11.5	1.1
1941	17,202	131,567	216,240	22,220	7.6	12.6	1.3
1942	60,945	240,222	529,305	93,308	3.9	8.7	1.5
1943	129,006	769,728	1,924,234	279,748	6.0	14.9	2.2
1944[3]	171,517	[4] 778,199	1,445,693	80,656	4.5	8.4	.5
1945[3]	169,483	[4] 603,192	1,172,627	80,598	3.6	6.9	.5
1946[3]	107,000	[4] 372,278	503,365	41,641	3.5	4.7	.4

[1] Includes medical relief furnished by Marine Hospitals, U. S. Public Health Service relief stations, Coast Guard vessels and bases, motorized dental stations, special acting assistant surgeons, U. S. Army hospitals, U. S. Navy hospitals, and other facilities.

[2] Figures for fiscal years 1923–42 and 1946 represent the average number on active duty and retired. The figure for 1943 is the number per Coast Guard complement chart of Dec. 20, 1942, and figures for 1944 and 1945 are the number on duty on Dec. 31, 1943 and 1944, respectively.

[3] Volume of relief understated due to incomplete reports from Coast Guard vessels and bases, and motorized dental stations.

[4] Naval hospitals excluded, effective Jan. 1, 1944, when Coast Guard personnel became free beneficiaries in those hospitals.

TABLE 12.—*Services furnished at medical stations for Coast Guard personnel, fiscal years 1914–46*

Fiscal year	Coast Guard vessels and bases				Special acting assistant surgeons				Motorized dental stations, dental treatments
	Hospital admissions	Hospital days	Out-patient treatments	Physical examinations	Hospital admissions	Hospital days	Out-patient treatments	Physical examinations	
1914	----------	----------	----------	145	----------	----------	----------	----------	----------
1915	6	26	584	416	----------	----------	----------	----------	----------
1916	13	99	1, 175	368	----------	----------	----------	----------	----------
1917	748	2, 114	3, 620	303	----------	----------	----------	----------	----------
1918	1, 390	5, 354	21, 755	546	----------	----------	----------	----------	----------
1919	978	5, 387	4, 035	463	----------	----------	----------	----------	----------
1920	----------	----------	9, 673	3, 234	----------	----------	----------	----------	----------
1921	----------	----------	5, 740	444	----------	----------	----------	----------	----------
1922	----------	----------	4, 458	245	----------	----------	----------	----------	----------
1923	----------	----------	18, 834	931	----------	----------	6, 497	397	----------
1924	----------	----------	28, 618	1, 581	1	16	6, 565	688	----------
1925	242	5, 029	65, 372	2, 574	10	259	8, 159	1, 365	----------
1926	312	2, 267	91, 079	5, 164	34	282	10, 702	1, 307	----------
1927	820	5, 953	133, 998	9, 429	18	190	13, 416	1, 744	----------
1928	603	5, 270	102, 964	7, 207	91	573	11, 009	2, 379	----------
1929	408	4, 003	126, 044	5, 196	129	1, 020	13, 673	2, 591	----------
1930	151	1, 717	139, 629	4, 496	178	1, 203	14, 057	1, 896	----------
1931	90	953	126, 839	4, 285	154	1, 352	17, 007	1, 596	----------
1932	54	1, 184	130, 436	3, 624	141	1, 226	17, 035	1, 373	----------
1933	89	1, 010	137, 366	3, 199	171	979	15, 481	801	----------
1934	259	3, 942	108, 242	1, 726	86	914	11, 768	621	----------
1935	263	3, 505	74, 155	1, 478	98	814	13, 045	1, 021	----------
1936	222	2, 434	48, 447	1, 081	83	565	12, 458	436	----------
1937	188	2, 144	59, 932	729	113	752	13, 444	650	----------
1938	136	2, 188	41, 732	931	79	334	14, 218	890	----------
1939	161	1, 500	40, 764	856	53	446	11, 317	509	5, 363
1940	265	1, 657	77, 297	2, 046	89	459	12, 249	1, 011	6, 735
1941	229	2, 178	127, 520	5, 818	134	841	12, 426	1, 873	7, 553
1942	2, 446	9, 973	298, 591	34, 658	243	2, 078	29, 105	2, 198	8, 266
1943	25, 466	123, 002	1, 454, 788	200, 191	480	2, 796	41, 516	2, 900	28, 774
1944 [1]	14, 006	81, 895	1, 033, 089	61, 652	616	4, 233	29, 488	2, 013	43, 475
1945 [1]	9, 482	54, 375	844, 349	59, 930	191	1, 568	15, 749	1, 772	23, 244
1946 [1]	3, 714	24, 321	340, 410	33, 114	54	1, 159	7, 317	398	17, 793

[1] Volume of relief understated because of incomplete reports from Coast Guard vessels and bases and motorized dental stations.

Freedmen's Hospital:

TABLE 13.—*Comparative data on volume and type of service, Freedmen's Hospital, fiscal years 1942–46*

	1946	1945	1944	1943	1942
Remaining in hospital beginning of fiscal year	458	451	426	461	374
Total admissions, including births	9,459	9,296	9,198	8,857	7,752
Total indoor under care	9,917	9,747	9,624	9,318	8,126
Total discharges, including deaths	9,436	9,289	9,173	8,892	7,665
Remaining in hospital end of fiscal year	481	458	451	426	461
Hospital days:					
General hospital	126,037	126,050	122,553	120,185	120,793
TB annex	40,574	41,598	43,242	45,431	34,928
Total hospital days	166,611	167,448	165,795	165,616	155,721
Daily average number of patients:					
General hospital	345.3	345.3	335.8	329.3	330.9
TB annex	111.2	113.4	118.5	124.5	95.7
Total daily average	456.5	458.7	454.3	453.8	426.6
Average number days' hospitalization per patient	16.9	17.9	18.1	18.6	19.2
Daily average number out-patient visits	220.1	232.4	284.1	221.2	338.5
Deliveries:					
Live births	2,061	2,102	1,940	1,915	1,575
Stillbirths	100	83	98	43	69
Total deliveries	2,161	2,185	2,038	1,958	1,644

TABLE 14.—*Discharges, autopsies, and consultations, by departments and services, Freedmen's Hospital, fiscal year 1946*

Department and services	Total discharges	Recovered	Improved	Unimproved	Died under 48 hours	Died over 48 hours	Autopsies	Consultations
Obstetrics and gynecology:								
Obstetrics:								
Delivered	2,196	2,192			1	3	1	64
Undelivered	176			176				16
Gynecology	980		938	18	7	17	6	52
Total	3,352	2,192	938	194	8	20	7	132
Medicine:								
General medicine	886		655	48	39	144	56	279
Medical pediatrics	457		374	7	15	61	21	27
Newborn	1,992	1,941		3	30	18	12	
Neurology	164		146	11	2	5	1	51
Dermatology	141		138	3				25
Total	3,640	1,941	1,313	72	86	228	90	382
T. B. Annex	131		66	10	1	54	13	
Surgery:								
General surgery	1,211		1,081	45	13	72	16	100
Orthopedics	249		233	8	2	6	1	31
Urology	250	5	208	5	2	30	7	26
E. N. T.	389	368	13	8				6
Pediatrics	99		97	1	1			3
Eye	55		53	2				15
Thoracic surgery	42		36	3		3	3	14
Oral surgery	18		17	1				4
Total	2,313	373	1,738	73	18	111	27	199

TABLE 15.—*Residence and pay status of discharged patients, Freedmen's Hospital, fiscal year 1946*

Pay status	Residence		
	District of Columbia	Outside the District	Total
Full pay	3,801	2,387	6,188
Part pay	163	52	215
Free	2,220	836	3,056
Total	6,184	3,275	9,459

TABLE 16.—*Appropriations and expenditures, Freedmen's Hospital, fiscal year 1946*

Annual appropriation:		
Salaries	$540,750	
Miscellaneous expenses	256,000	
Total annual appropriation		$796,750
Deficiency appropriation		253,300
Deficiency appropriation for change to 40-hour week		20,500
Total appropriated funds		1,070,550
Transferred to Public Building Administration for building maintenance	102,000	
Transferred to U. S. Public Health Service for stationery supplies	2,750	
Total transferred		104,750
Balance appropriated funds available for salaries and expenses		965,800
Receipts from pay patients		177,301
Gross amount available for operation		1,143,101
Gross expenditures as of June 30, 1946		1,138,533
Unencumbered balance		4,568

Hospitals for Drug Addicts and Mental Patients:

TABLE 17.—*Patient movement at the U. S. Public Health Service hospitals, Lexington, Ky., and Fort Worth, Tex., for the fiscal year 1946*

	Lexington		Fort Worth Male
	Male	Female	
Population June 30, 1945	1,112	78	970
ADMISSIONS			
Prisoners:			
Received direct from United States courts	480	72	0
Received by transfer from other Federal institutions	48	4	0
Conditional release and parole violators returned	42	5	0
Returned from escape	2	0	0
Returned from writ, leave, etc. (temporary discharge)	11	0	0
Prisoners held awaiting trial	12	4	0
Returned from funeral	3	0	0
	598	85	0
Probationers:			
Received direct from United States courts	84	27	0
Returned from leave, writ, etc	7	1	0
Returned for further treatment	3	1	0
Returned for observation	2	0	0
Status changed from prisoner to probationer	1	0	0
	97	29	0
Voluntary patients:			
Regular admission	721	189	40
Returned from leave	21	12	0
Returned for further treatment	1	0	0
	743	201	40
Executive order patients:			
Regular admission	3	0	2,189
Returned from visit	0	0	3
Returned from elopement	0	0	76
	3	0	2,268
Public Health Service beneficiaries:			
Regular admission	48	2	205
Returned from visit	1	0	0
Status changed from Executive order to Public Health Service beneficiaries	0	0	1
	49	2	206
Immigration Service patients:			
Regular admission	12	0	3
Status changed from Executive order to Immigration Service	0	0	1
	12	0	4
U. S. Army-Navy-Marine Corps patients: Regular admission	6	0	0
	6	0	0
Personnel patients:			
Regular admission	57	33	0
Returned from visit	0	2	0
	57	35	0
Special study case patients:			
Regular admission	11	4	0
Returned from visit	7	0	0
	18	4	0
Emergency medical service patients: Regular admission	2	0	0
	2	0	0
Special guest patients: Regular admission	2	3	0
	2	3	0
Total admissions	1,587	359	2,518

TABLE 17.—*Patient movement at the U. S. Public Health Service hospitals, Lexington, Ky., and Fort Worth, Tex., for the fiscal year 1946*—Continued

	Lexington		Fort Worth Male
	Male	Female	
DISCHARGES			
Prisoners:			
On parole	83	6	0
On conditional release	346	22	0
Short-term expiration	13	2	0
Full-term expiration	56	8	0
Transferred to other Federal institutions	62	18	0
To United States marshal for trial	15	3	0
On writ, leave, etc	11	1	0
To attend funeral	3	0	0
Custody of husband—order United States court	0	1	0
By death	9	0	0
Prisoner awaiting trial released to United States marshal	4	0	0
By escape	14	0	0
Status changed—prisoner to probationer	1	0	0
Paroled for deportation	10	0	0
On re-parole	2	0	0
Sentence reduced to expire forthwith	5	0	0
	634	61	0
Probationers:			
Cured	61	19	0
On writ, leave, etc	10	1	0
Observation study completed	4	0	0
Escape	1	0	0
Improved	1	0	0
Cured to United States marshal	1	2	0
Not an addict	1	0	0
	79	22	0
Voluntary patients:			
Cured	54	20	2
Maximum benefit	4	0	0
Against medical advice	616	167	39
On leave	38	17	0
By death	6	0	0
Status changed—voluntary to prisoner awaiting trial	1	0	0
Detriment to station	2	0	0
Observation study completed	2	0	0
	723	204	41
Executive order patients:			
Improved	13	0	1,067
Not improved	0	0	19
Transferred	2	0	642
Recovered	1	0	327
Against medical advice	8	0	2
On visit, leave, etc	3	0	0
Elopement	0	0	91
By death	10	0	10
Status changed—Executive order to Public Health Service beneficiary	4	0	1
Status changed to Immigration Service	0	0	1
To Immigration Service	4	0	0
Not psychotic	0	0	364
	45	0	2,524
Public health Service beneficiaries:			
Improved	8	0	9
Not improved	0	0	1
Recovered	5	0	161
Transferred	0	2	3
Against medical advice	6	0	2
On visit, leave, etc	1	0	0
By death	0	0	3
Status changed to emergency medical beneficiary	1	0	0
Without psychosis	1	0	2
	22	2	181

TABLE 17.—*Patient movement at the U. S. Public Health Service hospitals, Lexington, Ky., and Fort Worth, Tex., for the fiscal year 1946*—Continued

	Lexington		Fort Worth Male
	Male	Female	
DISCHARGES—continued			
Immigration Service patients:			
Improved	1	0	0
To Immigration Service	4	0	6
Paroled to Immigration Service	2	0	0
Paroled by Immigration Service	2	0	0
Released from internment by Attorney General	1	0	0
	10	0	6
U. S. Army-Navy-Marine Corps patients:			
Improved	4	0	0
Transferred	1	0	0
On leave	1	0	0
	6	0	0
Personnel patients:			
Improved	55	32	0
Recovered	2	2	0
On leave	1	2	0
Observation completed	0	2	0
Unimproved	0	1	0
	58	39	0
Special-study case patients:			
Improved	3	2	0
Against medical advice	2	1	0
Custody of father	1	0	0
Observation completed	1	2	0
Leave of absence	7	0	0
Unchanged	1	0	0
	15	5	0
Emergency medical service patients: Transferred	1	0	0
	1	0	0
Special guest patients: To California State authorities	2	3	0
	2	3	0
Total discharges	1, 595	336	2, 752
Population June 30, 1946	1, 104	101	736
Average daily population for fiscal year	1, 056	96	891

Foreign Quarantine Activities:

TABLE 18.—*Summary of transactions at maritime quarantine stations during the fiscal year 1946*

Station	Vessels inspected		Vessels granted pratique		Vessels fumigated	Deratization exemption certificates issued	Passengers inspected	Crew inspected	Port sanitary statements issued
	Quarantine	Immigration only	Free	Provisional					
Aberdeen, Wash	0	1	0	0	0	0	0	55	222
Anacortes, Wash	0	2	0	0	0	0	0	111	2
Astoria, Oreg	173	0	1	172	0	0	3,095	10,140	232
Baltimore, Md	1,002	111	873	129	55	511	5,269	42,674	4,816
Boston, Mass.[1]	946	9	369	227	12	153	11,574	28,327	2,379
Brownsville, Tex	406	0	392	14	0	13	21	5,293	428
Charleston, S. C	330	0	260	70	5	115	5,818	10,521	715
Corpus Christi, Tex	113	55	113	0	0	0	165	4,796	277
Eureka, Calif	0	0	0	0	0	0	0	0	6
Fall River, Mass	0	0	0	0	0	0	0	0	1
Fernandina (Cumberland Sound), Fla	6	0	6	0	0	0	0	302	23
Fort Lauderdale (Port Everglades), Fla	179	161	104	75	2	22	3,598	8,050	78
Fort Monroe, Va.[2]	1,600	84	689	706	54	544	377,347	85,424	1,620
Galveston, Tex	718	8	659	59	18	313	3,510	32,724	5,374
Gloucester, Mass	0	0	0	0	0	0	0	266	3
Gulfport, Miss	3	0	3	0	0	0	10	90	0
Jacksonville, Fla	135	81	100	35	0	52	200	4,861	604
Key West, Fla	25	0	25	0	0	1	4	539	19
Los Angeles, Calif	950	255	828	122	89	389	128,930	48,113	3,190
Marshfield, Oreg. (Coos Bay)	8	0	8	0	0	0	0	354	86
Miami, Fla	1,018	1,361	828	190	30	332	3,327	19,769	2,891
Mobile, Ala	609	41	396	213	10	260	1,906	29,299	3,067
Morehead City, N. C	1	0	1	0	0	0	0	37	0
New Bedford, Mass	0	0	0	0	0	0	0	0	6
New Orleans, La	1,169	253	890	279	30	421	5,636	47,300	6,062
New London, Conn	0	0	0	0	0	0	0	0	14
Newport, R. I	5	0	5	0	0	0	0	191	13
New York, N. Y	5,103	1,130	2,839	2,264	136	1,656	1,608,530	328,699	23,488
Olympia, Wash	0	0	0	0	0	0	0	0	20
Pensacola, Fla	104	48	55	49	0	54	196	4,859	292
Perth Amboy, N. J	6	0	6	0	0	0	20	276	0
Philadelphia, Pa. (Marcus Hook)	1,138	171	723	415	56	321	4,495	57,059	2,849
Port Angeles, Wash	249	2	14	235	0	0	20,113	16,234	0
Portland, Maine	316	0	315	1	0	70	601	11,909	275
Portland, Oreg	73	0	73	0	15	203	210	170	1,442
Providence, R. I	33	0	30	3	0	0	45	1,379	48
Raymond, Wash	0	0	0	0	0	0	0	0	1
Sabine, Tex	182	65	178	4	1	96	27	9,476	42
San Diego, Calif	442	12	412	30	0	62	35,186	26,840	3,050
San Francisco, Calif	1,244	0	1,175	69	41	820	37,919	76,708	0
San Luis Obispo, Calif	16	0	16	0	0	3	2	665	0
Savannah, Ga	119	0	112	7	1	61	546	5,690	218
Seattle, Wash	104	66	100	4	19	268	1,640	3,632	1,097
Tacoma, Wash	0	15	0	0	0	0	28	131	516
Tampa, Fla	564	251	174	390	57	68	1,039	11,649	1,009
Washington, D. C	9	0	9	0	0	0	0	249	0
West Palm Beach, Fla	4	337	4	0	0	0	638	3,508	424
Wilmington, N. C	9	0	7	2	0	0	8	133	0
Total	19,111	4,519	12,792	5,764	631	6,808	2,261,653	938,502	66,899
Hawaii	2,627	0	2,622	5	46	181	54,602	66,017	674
Philippines, Manila from May 23 to June 30	92	0	4	88	2	0	9,019	4,500	86
Puerto Rico	771	1	679	92	15	143	7,022	14,027	207
Virgin Islands	352	1	307	45	0	4	1,978	7,548	508
Total, all stations	[3] 22,953	4,521	16,404	5,994	[4] 694	7,136	2,334,274	1,030,594	68,374

[1] Includes 350 Government-chartered vessels; no pratique issued.
[2] Includes 205 military vessels; no pratique issued.
[3] Includes 9,633 Government vessels inspected.
[4] Includes 245 Government vessels fumigated.

TABLE 19.—*Transactions at United States airports of entry for airplanes from foreign ports,*[1] *summary of transactions at continental and insular stations during the fiscal year 1946*

Location	Name of airport	Number of airplanes arriving from foreign ports	Number of planes inspected for quarantine	Number of planes inspected for immigration	Number of crew inspected	Number of passengers inspected	Number of aliens examined	Number of aliens certified
Baltimore, Md.	Baltimore Airport [2]	186	82	104	1,838	4,793	3,881	3
Boston, Mass.	Bedford Army Air Base [2]	39	39	0	320	1,090	616	0
Brownsville, Tex.	Rio Grande Valley Airport	1,924	1,924	0	6,310	18,478	6,461	82
Charlotte Amalie, V. I.	Charlotte Amalie Airport [2]	34	34	0	102	155	102	0
Chicago, Ill.	Chicago Municipal Airport [2]	21	21	0	166	550	324	40
Detroit, Mich.	(Detroit Municipal Airport, Wayne County Airport, Ford Airport.)	577	0	577	502	3,116	0	0
Eagle Pass, Tex.	Eagle Pass Airport	12	12	0	13	16	0	0
El Paso, Tex.	Municipal Airport	384	384	0	1,167	7,254	1,841	1
Fort Worth, Tex.	Meacham Field [2]	407	407	0	1,222	7,720	2,775	43
Honolulu, Hawaii	Honolulu Airport [2]	7,624	7,624	0	-----	-----	-----	-----
Laredo, Tex.	Laredo Airdrome [2]	402	402	0	1,457	5,315	1,480	3
Los Angeles, Calif. (Burbank)	Lockheed Air Terminal [2]	498	498	0	1,998	7,853	4,276	15
Miami, Fla.	(International Seaplane Base, Chalks Flying Service) [3]	12,869	6,592	6,277	47,896	194,873	61,114	1,880
Newark, N. J.	Newark Airport [2]	7	7	0	40	36	23	0
New Orleans, La.	Municipal Airport [2]	586	586	0	3.225	11,406	4,494	516
New York, N. Y.	LaGuardia Field [2]	5,052	3,502	1,550	30,613	106.788	39,720	837
Nogales, Ariz.	Nogales Municipal Airport	194	192	2	511	1,428	1,444	4
Norfolk, Va.	Naval Air Station [2]	1	1	0	13	20	26	0
Ogdensburg, N. Y.	Ogdensburg Municipal Airport [3]	31	0	31	33	28	0	0
Philadelphia, Pa.	Southwest Airport [2]	26	22	4	182	659	403	0
San Antonio, Tex.	Municipal Airport [2]	421	421	0	1,291	7,797	2,245	23
San Diego, Calif.	San Diego Municipal Airport (Lindbergh Field)	252	60	192	450	775	490	0
San Juan, Puerto Rico	Isla Grande Airport	3,273	3,273	0	13,062	35,855	10,755	6
Seattle, Wash.	Boeing Municipal Air Field	1,098	5	1,093	3,768	19,354	0	0
Tampa, Fla.	Pinellas County Airport, Peter O'Knight [2]	59	38	21	127	48	35	0
Washington, D. C.	National Airport [2]	16	16	0	122	385	246	1
West Palm Beach, Fla.	(Roosevelt Flying Service Base, Morrison Field)	79	29	50	185	152	93	0
Total		36,072	26,171	9,901	116,613	435,944	142,844	3,454

---

[1] Airports at which there were no transactions during the year have been omitted.
[2] Not officially designated.
[3] Temporary permission.

TABLE 20.—*Summary of quarantine transactions on the Mexican border during the fiscal year 1946*

Station	Number of persons from interior of Mexico inspected	Number of local persons inspected	Total number of persons inspected	Total number of persons disinfested	Number of persons passed without treatment	Number of persons vaccinated	Number of sick persons refused admission	Number of pieces of baggage disinfected
Brownsville, Tex	10,112	2,397,076	2,407,188	0	2,406,943	245	0	0
Columbus, N. Mex	48	1,071	1,119	0	1,085	32	2	17
Del Rio, Tex	1,130	269,307	270,437	0	270,142	295	0	0
Douglas, Ariz	116	447	563	0	559	4	0	0
Eagle Pass, Tex	41,292	1,454,539	1,495,831	0	1,493,219	2,612	0	0
El Paso, Tex [1]	48,607	8,525,091	8,573,698	6	8,571,727	1,965	0	0
Hidalgo, Tex	58,330	1,785,872	1,844,202	0	1,842,989	1,213	0	0
Laredo, Tex [2]	125,037	5,688,432	5,813,469	5	5,812,723	741	0	0
Naco, Ariz	14	508	522	0	522	0	0	0
Nogales, Ariz	4,567	2,221	6,788	239	6,109	440	0	0
Presidio, Tex	819	129,462	130,281	0	128,873	1,408	0	66
Rio Grande City, Tex	296	19,413	19,709	0	19,624	85	0	0
Roma, Tex	1,002	252,786	253,788	0	253,788	0	0	0
San Ysidro, Tex	3,883	5,512	9,395	0	8,796	599	0	0
Thayer (Mercedes) Tex	0	139,257	139,257	0	139,257	0	0	0
Zapata, Tex	0	19,151	19,151	0	19,069	82	0	0
Total	295,253	20,690,145	20,985,398	250	20,975,425	9,721	2	83

[1] Includes Fort Hancock, Guadalupe Gate, and Ysleta.
[2] Includes Dolores and San Ignacio.

TABLE 21.—*Applicants for immigration visas medically examined and certified during the fiscal year 1946*

Country and consular office	Number of applicants examined	Number of applicants in each class			Number of applicants certified		
		Quota	Nonquota	Nonimmigrants	Class A	Class B	Total
WESTERN HEMISPHERE							
Cuba, Havana	3,140	1,145	1,995	0	1	400	401
Canada, total	27,382	8,080	16,491	2,811	103	4,706	4,809
Montreal	9,255	4,137	4,968	150	30	2,373	2,403
Niagara Falls	890	296	594	0	1	90	91
Quebec	584	0	584	0	1	71	72
Toronto	5,852	1,654	4,187	11	10	888	898
Vancouver	2,516	610	1,906	0	2	123	125
Windsor	3,757	1,115	2,637	5	56	721	777
Winnipeg	4,528	268	1,615	2,645	3	440	443
Total, Western Hemisphere	30,522	9,225	18,486	2,811	104	5,106	5,210
EASTERN HEMISPHERE							
Europe, total	15,628	10,688	840	6	19	1,912	1,931
England, London	10,387	9,796	586	5	15	1,642	1,657
France, Paris [1]	967	739	228	0	4	227	231
Germany [1]:							
Berlin	729						
Frankfurt	1,025						
Munich	1,141						
Stuttgart	895						
Netherlands, Rotterdam [2]	180	153	26	1	0	43	43
Italy, Naples	304						
Total, Western and Eastern Hemispheres	46,150	19,913	19,326	2,817	123	7,018	7,141

[1] Period from Jan. 1, 1946, to June 30, 1946.
[2] Period from Apr. 24, 1946, to June 30, 1946.

TABLE 22.—*Aliens medically inspected and certified at continental and insular ports and at border stations during the fiscal year 1946*

Place	Number of alien passengers examined	Alien passengers certified					Number of alien seamen examined	Alien seamen certified				
		Class A		Class B	Class C	Total		Class A		Class B	Class C	Total
		1	2					1	2			
ATLANTIC COAST												
Baltimore, Md	4,362	0	0	15	4	19	19,887	0	37	1	10	48
Boston, Mass	3,821	1	15	25	42	83	15,522	0	40	4	7	51
Charleston, S. C	5,320	0	0	0	0	0	4,101	1	8	0	0	9
Fernandina, Fla	0	0	0	0	0	0	302	0	0	0	0	0
Fort Lauderdale, Fla	3,599	0	0	2	11	13	4,596	4	1	0	0	5
Fort Monroe, Va	3,000	0	0	50	2	52	23,562	0	0	2	0	2
Gloucester, Mass	0	0	0	0	0	0	266	0	0	0	0	0
Jacksonville, Fla	70	0	0	0	0	0	2,835	0	8	0	0	8
Key West, Fla	3	0	0	0	0	0	245	1	0	0	0	1
Miami, Fla	60,600	50	1	1,824	12	1,887	21,659	0	28	3	0	31
New Bedford, Mass	6	1	0	0	0	1	0	0	0	0	0	0
New York, N. Y	130,506	75	113	2,209	11	2,408	151,886	97	585	3	2	687
Perth Amboy, N. J	98	0	0	0	0	0	0	0	0	0	0	0
Philadelphia, Pa	4,185	0	1	0	0	1	22,826	0	107	1	0	108
Portland, Maine	607	0	0	0	0	0	6,160	58	0	0	12	70
Providence, R. I	29	0	0	0	0	0	228	0	0	0	0	0
Savannah, Ga	126	0	0	0	0	0	3,702	0	1	0	0	1
West Palm Beach, Fla	99	0	0	0	0	0	3,229	0	0	0	0	0
Wilmington, N. C	0	0	0	0	0	0	133	0	0	0	0	0
Total	216,431	127	130	4,125	82	4,464	281,139	161	815	14	31	1,021
GULF COAST												
Corpus Christi, Tex	4	0	0	0	0	0	2,655	0	0	0	0	0
Fort Worth, Tex	2,775	0	0	43	0	43	0	0	0	0	0	0
Galveston, Tex	177	17	0	0	0	17	12,259	167	0	0	0	167
Gulfport, Miss	3	0	0	0	0	0	2	0	0	0	0	0
Mobile, Ala	557	5	0	2	0	7	8,452	179	0	13	0	192
Morehead City, N. C	0	0	0	0	0	0	37	0	0	0	0	0
New Orleans, La	6,738	1	7	2	2	12	26,160	1	212	46	44	303
Pensacola, Fla	86	0	0	0	0	0	2,100	0	28	0	0	28
Sabine, Tex	23	0	0	0	0	0	5,098	1	12	2	3	18
Tampa, Fla	783	0	0	0	0	0	10,730	0	37	0	0	37
Total	11,146	23	7	47	2	79	67,493	348	289	61	47	745

TABLE 22.—*Aliens medically inspected and certified at continental and insular ports and at border stations during the fiscal year 1946*—Con.

Place	Number of alien passengers examined	Alien passengers certified					Number of alien seamen examined	Alien seamen certified				
		Class A		Class B	Class C	Total		Class A		Class B	Class C	Total
		1	2					1	2			
PACIFIC COAST												
Aberdeen, Wash	0	0	0	0	0	0	38	0	0	0	0	0
Anacortes, Wash	0	0	0	0	0	0	111	0	0	0	0	0
Astoria, Oreg	165	0	0	0	0	0	3,856	0	0	0	0	0
Los Angeles (Terminal Island), Calif	8,328	8	1	18	0	27	14,666	1	21	2	0	24
Marshfield (Coos Bay), Oreg	0	0	0	0	0	0	207	0	0	0	0	0
Port Angeles, Wash	234	0	0	0	0	0	1,815	0	0	0	0	0
Portland, Oreg	208	0	0	0	0	0	132	0	1	0	0	1
San Diego, Calif	15	0	5	3	0	8	1,575	0	0	0	0	0
San Francisco, Calif	6,136	2	0	0	0	2	7,059	0	0	0	0	0
San Luis Obispo, Calif	0	0	0	0	0	0	132	0	0	0	0	0
Seattle, Wash	1,100	2	2	12	0	16	3,392	0	1	3	0	4
Tacoma, Wash	33	0	0	0	0	0	131	1	0	0	0	1
Total	16,219	12	8	33	0	53	33,114	2	23	5	0	30
MEXICAN BORDER												
Ajo, Ariz	133	0	0	1	0	1	---	---	---	---	---	---
Brownsville, Tex	6,439	13	12	114	27	166	5,551	0	14	3	1	18
Calexico, Calif	1,337	11	0	7	3	21	---	---	---	---	---	---
Columbus, N. Mex	1,119	0	0	0	0	0	---	---	---	---	---	---
Del Rio, Tex	108	3	3	0	0	6	---	---	---	---	---	---
Douglas, Ariz	638	7	20	6	11	44	---	---	---	---	---	---
Eagle Pass, Tex	527	7	6	29	22	64	---	---	---	---	---	---
El Paso, Tex.[1]	12,254	36	8	219	3	266	---	---	---	---	---	---
Hidalgo, Tex	6,456	7	9	89	98	203	---	---	---	---	---	---
Laredo, Tex.[2]	124,801	10	4	160	10	184	---	---	---	---	---	---
Naco, Ariz	567	0	2	5	25	32	---	---	---	---	---	---
Nogales, Ariz	7,766	8	56	221	41	326	---	---	---	---	---	---
Presidio, Tex	735	4	0	26	13	43	---	---	---	---	---	---
Rio Grande City, Tex	61	3	0	0	1	4	---	---	---	---	---	---
Roma, Tex	934	2	0	0	1	3	---	---	---	---	---	---
San Ysidro, Calif	9,395	26	31	208	0	265	---	---	---	---	---	---
Sonoyta, Ariz	12	0	0	0	0	0	---	---	---	---	---	---

[1] Includes Guadalupe Gate and Ysleta, Tex.

[2] Includes Dolores and San Ignacio, Tex.

Thayer (Mercedes), Tex	203	0	0	0	0	0						
Tucson, Ariz	196	6	15	15	7	43						
Zapata, Tex	247	0	0	0	0	0						
Total	173, 928	143	166	1, 100	262	1, 671	5, 551	0	14	3	1	18
CANADIAN BORDER												
Blaine, Wash	144	27	0	18	99	144	0	0	0	0	0	0
Buffalo, N. Y	70	3	1	13	2	19	0	0	0	0	0	0
Calais, Maine	51	0	0	1	0	1	0	0	0	0	0	0
Chicago, Ill	731	1	4	35	15	55	283	1	4	10	0	15
Clayton, N. Y	17	4	0	0	0	4	0	0	0	0	0	0
Detroit, Mich	2, 422	103	0	72	0	175	48	0	0	0	0	0
Eastport, Idaho	284	9	0	60	21	90	0	0	0	0	0	0
Erie, Pa	2	0	0	0	0	0	0	0	0	0	0	0
Halifax, N. S. Canada	4, 201	4	2	346	375	727	0	0	0	0	0	0
Houlton, Maine	102	0	0	0	0	0	0	0	0	0	0	0
International Falls, Minn	176	1	0	11	1	13	0	0	0	0	0	0
Malone, N. Y	16	3	0	0	0	3	0	0	0	0	0	0
Montreal, Canada	1, 240	56	0	344	19	419	0	0	0	0	0	0
Newport, Vt	468	6	1	44	87	138	0	0	0	0	0	0
Niagara Falls, N. Y	494	2	0	56	16	74	0	0	0	0	0	0
Noyes, Minn	16	0	0	0	0	0	0	0	0	0	0	0
Ogdensburg, N. Y	2	1	0	1	0	2	65	0	0	0	0	0
Oroville, Wash	375	0	0	0	0	0	0	0	0	0	0	0
Oswego, N. Y	908	15	0	124	1	140	0	0	0	0	0	0
Port Huron, Mich	454	26	2	19	3	50	125	2	0	2	0	4
Quebec, Canada	815	1	0	82	160	243	0	0	0	0	0	0
Rochester, N. Y	0	0	0	0	0	0	88	0	0	0	0	0
Rouses Point, N. Y	479	4	3	10	2	19	0	0	0	0	0	0
St. Albans, Vt	215	5	0	12	8	25	0	0	0	0	0	0
Sault Ste. Marie, Mich	23	0	0	0	0	0	0	0	0	0	0	0
Sumas, Wash	19	4	0	3	0	7	0	0	0	0	0	0
Van Buren, Maine	43	0	0	0	0	0	0	0	0	0	0	0
Vanceboro, Maine	1, 108	0	0	0	0	0	0	0	0	0	0	0
Vancouver, Canada	1, 009	14	3	235	53	305	0	0	0	0	0	0
Victoria, B. C. Canada	452	6	2	39	55	102	0	0	0	0	0	0
Winnipeg, Manitoba, Canada	7, 172	11	3	1, 253	209	1, 476	0	0	0	0	0	0
Total	23, 508	306	21	2, 778	1, 126	4, 231	609	3	4	12	0	19
INSULAR												
Hawaii	304	0	0	11	2	13	2, 435	3	9	28	12	52
Puerto Rico	682	3	0	0	0	3	8, 410	2	6	0	0	8
Virgin Islands	1, 477	0	0	0	0	0	6, 498	0	19	3	0	22
Total, all stations	443, 695	614	332	8, 094	1, 474	10, 514	405, 249	519	1, 179	126	91	1, 915

Assistance to States:

TABLE 23.—*Payments to States for general health, venereal disease control, and tuberculosis control for fiscal year 1946, under provisions of sec. 314 of the Public Health Service Act (58 Stat. 682)*

State	General health	Venereal disease	Tuberculosis control
Total	$10, 963, 653. 65	$8, 748, 383. 58	$5, 178, 964. 50
Alabama	359, 697. 00	384, 294. 00	88, 760. 00
Alaska	38, 836. 00	20, 385. 00	64, 149. 00
Arizona	64, 100. 00	38, 561. 00	31, 315. 00
Arkansas	156, 219. 00	233, 808. 00	86, 166. 00
California	515, 723. 00	431, 006. 00	157, 627. 00
Colorado	108, 080. 00	58, 969. 00	59, 412. 00
Connecticut	110, 276. 00	73, 726. 00	107, 669. 00
Delaware	25, 477. 00	25, 327. 00	42, 662. 00
District of Columbia	41, 454. 00	71, 557. 50	61, 300. 00
Florida	206, 012. 14	316, 202. 61	145, 315. 00
Georgia	420, 420. 00	430, 340. 00	156, 180. 00
Hawaii	76, 433. 00	50, 590. 00	74, 888. 00
Idaho	72, 412. 00	31, 445. 00	15, 747. 00
Illinois	524, 389. 37	356, 287. 64	161, 018. 00
Indiana	262, 104. 00	158, 338. 00	124, 072. 00
Iowa	132, 440. 00	50, 350. 00	50, 116. 00
Kansas	173, 676. 00	104, 783. 00	123, 464. 00
Kentucky	327, 300. 00	337, 893. 00	167, 006. 00
Louisiana	298, 207. 49	283, 902. 00	126, 140. 00
Maine	80, 639. 00	35, 924. 25	20, 802. 00
Maryland	152, 170. 00	120, 311. 00	123, 941. 00
Massachusetts	268, 648. 00	79, 963. 00	311, 146. 00
Michigan	387, 313. 00	233, 288. 00	275, 411. 00
Minnesota	207, 723. 00	93, 179. 00	106, 576. 00
Mississippi	314, 990. 00	356, 790. 00	113, 024. 00
Missouri	201, 299. 00	146, 854. 00	75, 668. 00
Montana	43, 807. 00	5, 525. 00	8, 559. 00
Nebraska	113, 198. 00	31, 126. 00	56, 032. 00
Nevada	24, 197. 00	8, 764. 00	2, 202. 00
New Hampshire	45, 829. 00	22, 365. 00	8, 786. 00
New Jersey	238, 853. 00	173, 846. 00	119, 499. 00
New Mexico	93, 585. 00	43, 274. 00	26, 261. 00
New York	748, 305. 00	410, 203. 00	230, 842. 00
North Carolina	388, 018. 00	343, 393. 00	84, 442. 00
North Dakota	63, 054. 00	24, 262. 00	61, 759. 00
Ohio	443, 284. 00	246, 811. 00	194, 087. 00
Oklahoma	180, 456. 00	202, 228. 00	132, 138. 00
Oregon	127, 224. 00	79, 563. 00	41, 301. 00
Pennsylvania	356, 543. 00	320, 459. 00	80, 179. 50
Puerto Rico	320, 804. 00	353, 628. 00	169, 673. 00
Rhode Island	58, 798. 00	27, 355. 00	43, 284. 00
South Carolina	272, 088. 00	334, 332. 00	174, 138. 00
South Dakota	54, 563. 00	20, 089. 00	31, 342. 00
Tennessee	299, 664. 00	298, 012. 00	147, 915. 00
Texas	628, 893. 00	644, 814. 00	77, 118. 00
Utah	54, 976. 26	35, 922. 95	22, 736. 00
Vermont	34, 407. 00	19, 662. 00	22, 575. 00
Virginia	248, 562. 39	237, 055. 63	283, 232. 00
Virgin Islands	13, 352. 00	15, 756. 00	28, 206. 00
Washington	199, 385. 00	97, 225. 00	74, 812. 00
West Virginia	183, 986. 00	126, 241. 00	65, 076. 00
Wisconsin	173, 641. 00	93, 136. 00	109, 083. 00
Wyoming	28, 143. 00	9, 262. 00	14, 113. 00

Public Health Nursing

TABLE 24.—*Total number of nurses employed for public health work*[1] *in the United States, in the Territories of Hawaii and Alaska, and in Puerto Rico and the Virgin Islands*[2] *on Jan. 1 of the years 1942, 1943, 1944, 1945, 1946*

	1942	1943	1944	1945	1946
Grand total[1]	21,123	20,772	[2] 19,821	[2] 20,818	[2] 20,672
State agencies	864	886	811	869	946
Local official agencies:					
Rural	4,971	5,127	4,900	4,938	4,665
Urban	5,640	5,604	5,443	5,700	5,805
Local boards of education	3,913	3,786	3,722	4,321	4,276
Local nonofficial agencies	5,590	5,156	4,713	4,742	4,655
Schools of nursing[3]	----------	----------	----------	----------	[3] 84
National agencies[4] and universities	145	213	232	248	241
Number of counties having no nurses engaged in full-time public health work in rural areas	782	826	845	909	1,133
Number of incorporated cities and towns (population 10,000 or more) having no nurses engaged in full-time public health work	32	28	13	9	23

[1] Exclusive of industrial nurses.

[2] Virgin Islands included in 1944, 1945, and 1946 totals only. No report received from New Jersey in 1944. (1943 total for New Jersey was 1,142).

[3] Data available for 1946 only.

[4] A considerable number of nurses employed by the American Red Cross are engaged in activities that are not strictly public health nursing.

HISTORICAL NOTE

St. Elizabeths Hospital was founded by act of Congress in 1852 under the name of The Government Hospital for the Insane. Its purpose, in the words of Dorothea Lynde Dix who wrote the bill, was to provide "the most humane care and enlightened curative treatment of the insane of the Army and Navy of the United States and of the District of Columbia."

In 1916 the name was changed by act of Congress to St. Elizabeths Hospital, thus confirming a custom which had grown up through the years of applying to the hospital the name of the tract of land upon which it was erected, the tract having been indicated as St. Elizabeths from the days of the early Maryland settlers.

The institution was administered under the supervision of the Department of the Interior until 1940, when by the Fourth Reorganization Act it was transferred to the Federal Security Agency. It is now a Bureau of that Agency.

SECTION FIVE

ST. ELIZABETHS HOSPITAL

FOREWORD

The annual report of St. Elizabeths Hospital for the fiscal year ending June 30, 1946, is herewith presented. During the year, the hostilities of the greatest war in history have come to an end, and some steps have been taken toward a resumption of peacetime activities and standards. Difficulties have not been absent: although rationing has ended, some foodstuffs have been scarce; certain other supplies, notably textiles and clothing, have been very hard to secure; ward personnel, especially female, remains woefully short of needs. On the other hand, with the decrease in admissions coincident with the cessation of hostilities and largely due to that cessation, and with the return of some of the medical staff and male ward personnel from military service, some of the pressure on those immediately concerned with the care of patients has diminished, with consequent improvement in the attention given to those for whom the hospital was established. The general health of the patients has remained at a high level, and the rate of recovery has continued to be very gratifying.

The primary function of a mental hospital is, of course, the best possible care of its patients; of hardly secondary importance are two others—teaching and research. St. Elizabeths Hospital has actively continued these functions as well. Interns, residents, naval medical officers, medical students, clinical psychologists, nurses (undergraduate, affiliate, and postgraduate), attendants (St. Elizabeths Hospital and Navy Hospital Corps), Red Cross workers (of several categories), student social workers and dietitians and theological students have all benefited during the year from instruction received at the hospital. A postgraduate course for physicians was given at the hospital, and an excellent 2-day scientific program was conducted by members of the Medical Society of St. Elizabeths Hospital.

A number of research activities have been carried on, three of them under the auspices of the Supreme Council (thirty-third degree) of the Scottish Rite of Freemasonry for the Northern Masonic Jurisdiction. The list of publications of staff members indicates only a part of the studies carried out as an intimate outgrowth of the clinical activities of the medical staff.

As we look back over the 5 years of the war, a brief mention of the relationship of St. Elizabeths Hospital to the war effort may not be amiss. During the period of actual hostilities, about 5,600 naval patients were admitted to the hospital; the statistics, as well as the testimony of their families and others who know, demonstrate that they were cared for efficiently, kindly, and comfortably. Another service rendered to the Navy during the period is indicated by the fact that 125 naval medical officers received training in psychiatry, training which enabled the Navy to give better early treatment to men in need of psychiatric attention. Also, about 800 enlisted men of the Navy Hospital Corps, a few Waves and about 40 Navy nurses received training in the handling of psychiatric patients. Finally, about 3,000 Red Cross workers received a small or substantial part of their psychiatric orientation at the hospital and with the assistance of its staff. Nor is this all. It was the proud privilege of the hospital to be associated as an active partner with the Army and Public Health Service in a number of clinical studies of a highly confidential nature, which had a direct and beneficial bearing on the health of the men in the armed forces. Members of the staff likewise served on various advisory committees organized to aid the medical services of the Army, Navy, and Public Health Service in their monumental task. St. Elizabeths Hospital has served the Nation in four wars; in the fourth, and hopefully the last in which this country will be engaged, it has been proud and happy to do its part in aiding in the victory.

WINFRED OVERHOLSER, M. D.,
Superintendent.

ST. ELIZABETHS HOSPITAL

Movement of Population

Transition from war to peace conditions during the year ending June 30, 1945, has been manifest in marked reduction of admissions from the armed services. An all-time high in patient load was reached prior to VJ-day. Since that time the reduction in admissions from the military establishments together with discharges and transfer of many patients eligible for Veterans' Administration hospitalization to veterans' hospitals has resulted in an average number of patients on the rolls during the year approximating that existing during 1943.

As of the end of the year, 6,502 patients remained on the rolls compared with 7,466 at the end of the previous year.

A total of 1,909 patients were admitted, including 229 readmissions. Of the latter, 123 had previously been treated at this hospital and 106 at others. Of the admissions, 780, or about 41 percent, were from military sources.

Two thousand four hundred and seventy-seven patients were discharged including transfers to other hospitals as compared with 2,299 the previous year. Three hundred and ninety-six deaths occurred, or 64 less than last year. The combined total of discharges and deaths was 2,873, the largest number dropped from hospital rolls in any previous year.

The average hospitalization furnished to patients discharged or deceased was 1,030 days.

Reduction in admissions and high-discharge rate resulted in the highest ratio of discharges to admissions of 129.75 percent, the highest in the history of the hospital.

Burials for 59 deceased patients were provided in the hospital cemetery. The remainder were interred privately, many being buried in national cemeteries, including that in Arlington, Va.

The daily average of patients on the rolls was 7,043, the average number of patients on visit or elopement 466 and the average daily hospital load 6,577.

The provisions of Executive Order 9079, dated February 26, 1942, providing for care of patients at the United States Public Health Service hospitals at Fort Worth, Tex., and Lexington, Ky., at the expense of St. Elizabeths Hospital appropriations, continued in effect, a total of 965 patients being so cared for as of June 30, 1946.

Movement of patient population for the fiscal year 1946

	Male			Female			Total
	White	Colored	Total	White	Colored	Total	
Remaining on rolls June 30, 1945	3,384	1,177	4,561	1,888	1,017	2,905	7,466
Admitted during year ending June 30, 1946	903	271	1,174	508	227	735	1,909
Total number under care and treatment during year ending June 30, 1946	4,287	1,448	5,735	2,396	1,244	3,640	9,375
Discharged as—							
Not insane	19	7	26	0	2	2	28
Recovered	241	7	248	59	24	83	331
Social recovery	375	85	460	130	23	153	613
Improved	485	92	577	203	44	247	824
Unimproved	491	71	562	102	17	119	681
Total discharged	1,611	262	1,873	494	110	604	[1] 2,477
Died	131	82	213	124	59	183	396
Total of patients discharged and dead	1,742	344	2,086	618	169	787	2,873
Number of patients remaining on rolls June 30, 1946	2,545	1,104	3,649	1,778	1,075	2,853	6,502
Patients on visit and elopement June 30, 1946	120	66	186	154	85	239	425
Number of patients in hospital June 30, 1946	2,425	1,038	3,463	1,624	990	2,614	6,077

[1] Includes transfers.

Admissions and discharges, 1935–46

Fiscal year	Total admissions	Total discharged	Percent discharged in relation to admissions	Total deaths
1935	824	396	48.06	304
1936	925	552	59.68	298
1937	1,099	490	44.59	332
1938	1,029	461	44.80	267
1939	1,056	469	44.41	281
1940	1,202	619	51.50	322
1941	1,503	773	51.43	382
1942	1,797	1,534	[1] 84.36	371
1943	2,324	1,491	64.15	420
1944	2,599	2,056	79.11	441
1945	2,935	2,299	78.30	460
1946	1,909	2,477	129.75	396

63.10 without transfer of 400.

Number of patients in the Public Health Service hospitals

Number of patients at Lexington, Ky., June 30, 1945	305
Admitted during the fiscal year 1946	3
Total	308
Separated by death or discharge during the fiscal year	45
Number of patients in Lexington hospital June 30, 1946	263

Number of patients at Fort Worth, Tex., June 30, 1945	958
Admitted fiscal year 1946	2,268
Total	3,226
Dead and discharged fiscal year 1946	2,524
Number of patients in Fort Worth hospital June 30, 1946	702

Average number of patients on rolls of St. Elizabeths, 1935–46

1935	5,267	1941	6,663
1936	5,373	1942	6,994
1937	5,538	1943	7,031
1938	5,836	1944	7,161
1939	6,108	1945	7,308
1940	6,395	1946	7,044

Medical Department

The psychiatric care and treatment of patients was carried out in the two clinical divisions of the hospital, each being in charge of a clinical director. Clinical division No. 1 (men patients), consists of six, while clinical division No. 2 (women patients), consists of four services under the directon of a physician in charge with one or more assistants, dependent upon the size of the service and the character of patients treated.

The high-admission rate of male patients which prevailed during the war years reached its peak on July 3, 1945, when we carried 4,563 male patients, the low mark being June 3, 1946, when we carried 3,649 patients. The decrease in the number of admissions of male patients was due primarily to the end of hostilities and the transfer of a large number of patients to various Veterans' Administration facilities. Similarly, we experienced a marked change in the discharge rate of men patients, although these figures are somewhat distorted because of the great number of transfers to Veterans' Administration facilities which occurred during the fiscal year. There were only minor changes in the admission and discharge rate in clinical division No. 2.

The following columns show a comparison of the admissions and discharges in both divisions of the hospital during 1945 and 1946:

	1945			1946		
	Male	Female	Total	Male	Female	Total
Patients admitted	2,126	808	2,934	1,174	735	1,909
Discharged	1,862	437	2,299	1,873	604	2,477
Died	257	203	460	213	183	396
Total out	2,119	640	2,759	2,086	787	2,873

During the war years, in order to accommodate the increase in admission rate of service cases, the wards set aside for civilians in the women's department became somewhat crowded. We were unable to turn over additional wards to the women's department on account of the slow but steady increase in the admission of male patients. Because of the decrease in the admission rate in the number of male patients cared for at this hospital for reasons mentioned above, vacant beds became available and enabled us to remove the excess of beds which were added during the emergency. Unfortunately, however, we found that some of the buildings which housed male patients were not entirely suitable for the care of the type of women patients for whom space was needed. Certain changes, such as the installation of bathtubs, became necessary. During 1945 with the opening of CT No. 7 and No. 8 it became necessary to split the East Side Service and the William A. White Service was established. The lowered admission rate and the increase in discharges of male patients enabled us to turn over CT–3 Building to the women's department, and it is planned in the near future to detach another building from division No. 1; this will necessitate another rearrangement of the East Side and William A. White Services. It is planned to split Richardson Service after an additional building has been assigned to clinical division No. 2 and to transfer the William A. White Service from clinical division No. 1 to clinical division No. 2, which cares for women patients only. During the war years additional wards were set aside for the care of officer patients from the Army and Navy, and in addition to the wards in the men's receiving building there were two wards in the William A. White Service. With the termination of hostilities and the decrease in the admission rate of officer patients, and due to the large discharge rate of that group, we have been able to accommodate all officer patients in the men's receiving building, and the William A. White Service is no longer used for that purpose.

Hope that the critical ward personnel situation would be markedly improved with the end of hostilities has not materialized to any extent. The hospital continues to be greatly handicapped by deficient ward personnel both as to quantity and quality, and even the moderate quota allowed by the budget could not be filled. Shortage of ward personnel made it impossible to grant annual leave when requested and we were compelled to deny some requests or grant only part of the leave requested. During the early months of this year the turn-over in ward personnel was very great, the loss of employees during some months being almost equal to the number of new appointees—this in spite of every effort on the part of the hospital to train all new employees and assign them to wards under the most competent nurses available. The quality of ward personnel was further diluted because we lost a considerable number of trained Navy personnel, particularly in the ship's company class, who had general hospital training before coming here in addition to several years' practical experience on our most important wards. The vacancies thus created could only be filled by trainee attendants. It is hoped that this situation will improve in the near future, but it will take some time before the quality of personnel at the hospital can be raised to that which prevailed before the war. The change to a 44-hour and later on to a 40-hour workweek entailed an enormous amount of work to adjust various ward personnel quotas.

The 9 months' emergency intern course which prevailed during the war years has been lengthened to a 1-year period; this enables interns to spend 2 months instead of 1 month in the psychiatric department. The assignment of Navy physicians at this hospital terminated on June 10, 1946. Until that time we continued with the usual course of training for Navy physicians which prevailed during the war years.

The psychiatric department has continued to provide every form of therapy, new and old, which has demonstrated maximum value with minimum risk. We have continued to use electric shock therapy extensively, primarily in cases of depression, but also in a number of cases of schizophrenia. We have continued to use intravenous sodium amytal, especially in cases of catatonia or other patients who were inaccessible to psychotherapy. Subshock insulin therapy has been used on various wards and has proven of definite benefit in cases showing agitated depression or extreme anxiety where for various reason shock therapy was contra-indicated. Due to the decrease in admission rate and the increase in medical personnel we have been able to give special psychotherapy to a larger group of patients than in previous years. As in former years all the members of the staff have been encouraged to devote as much time as possible to this form of treatment.

The stenographic department has been unable to keep up with the current work of the medical department, even though our histories and notes were streamlined during the war due to shortage of personnel, and this situation has become aggravated with the increase in medical personnel. A great deal of valuable information which is required in making decisions as to privileges, visit, or discharge, is contained on the cylinders stored in the stenographic room and frequently not recorded until after the patient has been discharged. Additional personnel is needed in this department, and every effort is being exerted looking toward recruitment.

During the greater part of the fiscal year the record room has been unable to keep up with the current filing; this situation is being rectified.

Several of the services of the hospital are still without secretaries in spite of efforts to recruit additional help.

The decrease in the patient load and the admission rate of male patients has enabled us to devote more time to the improvement in the classification of our patients throughout the various wards of the hospital and to return gradually to the procedures and practices in vogue before the war.

Division of Clinical Psychiatry

As mentioned elsewhere, a larger number of patients were able to receive special psychotherapeutic attention than in the previous year. A greater variety of intelligence tests, basic achievement tests and technic tests was given by the psychological department to the following groups:

Patients	751
Student nurses and applicants	35
Attendants	31
Student nurses and applicants	35

The program of vocational advisement initiated in the fall of 1944 was continued during the fiscal year. A great number of vocational tests were given to veterans and others during their stay here, and especially prior to their discharge from the hospital. Four hundred sixteen patients were benefited by this program.

Psychodrama.—Regular sessions were held throughout the year; 249 patients receiving benefit from this form of therapy. Psychiatrists from various States and foreign countries were afforded an opportunity to acquaint themselves with this new method of psychotherapeutic technic. Among other visitors at the psychodrama sessions should be mentioned Red Cross workers, Navy nurses and Waves, social workers, students from Catholic University, and nurses and attendants from our own institution. Music and art sessions were conducted for selected patients under the supervision of this department throughout the fiscal year.

Hydrotherapy.—This valuable form of treatment practiced in all modern psychiatric institutions has been extensively used throughout the hospital. Seven hydrotherapeutic facilities, each in charge of a hydrotherapist and one or more assistants, have continued in operation.

Occupational therapy.—This form of therapy was carried on in 18 different groups at the hospital—in 7 separate shops and on various wards. Occupational assignments were made by the physicians, every effort being made to afford this form of therapy to as large a percentage of patients as possible. An average of 317 women patients and 246 men patients per month participated in the occupational activities. Under this department various forms of recreation were afforded to both men and women; an average of 1,175 patients, both men and women, per month participated. The occupational therapy department has carried on a training program in occupational recreational therapy for approximately 600 student nurses, including Navy nurses and senior cadet nurses, each student nurse spending from 1 to 2 weeks in each section of this department. All regular and affiliating undergraduate student nurses received an 8-hour theory course.

The following work was performed in this department by patients:

Articles of clothing made in sewing room	1,279
Articles mended	9,177
Articles for general use in the hospital	7,638

One thousand four hundred and twenty-five of this number were used as Christmas gifts for women patients. During the Christmas holidays the hospital furnished fruit, nuts, candy, and chewing gum, and these articles were packed in tarlatan bags and distributed by the workers of the occupational therapy department.

This department continues to be seriously understaffed. The ability of other governmental agencies to offer substantially higher rates of compensation than are possible under the allocation allowed us by the Civil Service Commission has made it next to impossible to recruit and hold occupational therapists. Until this situation is corrected we may expect to have a wholly inadequate staff in this department; at present there are five vacancies. Recommendations have repeatedly been made for elimination of this discrepancy and we have reason to hope that favorable action will be taken in the near future.

Industrial therapy.—Convalescent patients and those enjoying ground privileges, also those who have been discharged from the occupational therapy department by reason of improvement in their condition, were given special assignments in the various industries of the institution.

Social service.—The shortage of personnel in this department, which was discussed in the last annual report, has become much more aggravated during the last fiscal year by reason of the resignation of the chief assistant, who had been on the staff for over 16 years. She resigned from the hospital because another Government agency was able to offer her a position two grades higher than was allocated here by the Civil Service Commission. The hospital was unable to recruit new social workers because the grades allocated by the Civil Service Commission for workers at this hospital are not high enough to attract applicants. Steps are being taken in an effort to correct this situation. It seems unbusinesslike for one agency of the Government to be able to offer substantially higher rates of pay for similar work than another agency of the same Government. Due to the extreme shortage of workers in this department only emergency cases were given attention and the number of patients receiving help from this department during the past year reached a new low. The following work was performed in the social service department:

Patients receiving supervision	367
Histories taken	199
Special activities for in-patients	326
Investigations in connection with proposed visits	142

This department has also cooperated with the District of Columbia Office of Rehabilitation in connection with the rehabilitation of a number of our convalescent and discharged patients.

School of nursing—During the fiscal year the training school gave instruction to 55 St. Elizabeths Hospital students (receiving a 3-year course), 72 affiliate students, 96 senior cadets; 3 classes of United States naval hospital corpsmen consisting of 214 persons—200 men and 14 women—and 38 United States Navy nurses. Forty-six student nurses were graduated during the last fiscal year after satisfactorily completing their 3-year course. Forty-five of that group took the examinations of the Nurse Examining Board of the District of Columbia and 14 of them made "honors," i. e., a grade of 90 percent or over. The hospital has continued its affiliation with Gallinger Municipal Hospital, Sibley Memorial Hospital, Children's Hospital, Emergency Hospital, Freedmen's Hospital, Garfield Hospital, Providence Hospital (all of Washington), Jersey City Medical Center, St. Francis Xavier, Alexandria, Va., Camden-Clark, Parkersburg, W. Va., Chesapeake & Ohio, Clifton Forge, Va., Florida Sanitarium, Orlando, Fla., St. Joseph's, Lancaster, Pa., and St. Joseph's, Reading, Pa. We also furnished psychiatric training for the senior cadet period of 10 schools: Brownsville, Champlain, Chesapeake & Ohio, Garfield, Hamot, Monmouth, Providence (Beaver Falls), Sibley, St. Barnabas, and Warren A. Chandler.

As in former years, the postgraduate course in affiliation with Catholic University was continued. During the past year we had 22 students from that intsitution; 16 completed the course.

Under the supervision of the training school, in-service training and refresher courses were continued during the past year. Special courses were given to trainee attendants and a course for regular attendants leading to advancement to the position of charge attendant.

Libraries.—As usual, two libraries were maintained during the fiscal year, the medical library for the medical and nursing staffs, and a circulating library for the patients. The medical librarian resigned

March 3, 1946, and her position remains vacant pending the results of an examination to be set by the Civil Service Commission. Both libraries are being supervised by the librarian of the circulating library.

(*a*) *Medical library.*—The medical library received an addition of 320 new books, the hospital purchasing 108 of these, 151 volumes were donated, and 61 were bound at the Government Printing Office. At the end of the fiscal year there were 12,389 volumes in this library. Pamphlets on hand (including reprints, annual reports, and miscellaneous bulletins), were estimated at 10,000. The medical library received 113 periodicals during the last year. The total circulation was 2,246. These figures do not include books and periodicals consulted in the reading room of the library.

(*b*) *Patients' circulating library.*—One thousand and twenty-one volumes were added to this library during the last year, the hospital purchasing 271 new books while 761 were donated. Miss Mary E. Switzer, assistant to the Administrator of the Federal Security Agency, Miss Ruth E. Rodier, librarian of the United States Navy Hospital, Dr. Winfred Overholser, Dr. Samuel A. Silk, and various other members of the medical staff were among the donors. At the present time there are 21,681 books in the circulating library. Approximately 3,200 books circulate each month from this library. Patients visit the reading room daily, where newspapers, periodicals, etc., are available. Books from this library are also made available to patients who are unable to visit the library. Five daily and Sunday newspapers and 56 popular magazines are received regularly, many of the subscriptions being donated by friends of the hospital. Newspapers and magazines not suitable for binding were distributed throughout the various wards after they had served their purpose in the reading room. About 4,000 magazines were received from the Post Office Department as unclaimed mail, and about 5,500 magazines were received from other sources.

The circulating library maintained its own book bindery, the work being performed by convalescent patients. There were 561 books repaired or bound; 365 scrap and memorandum pads of various sizes were prepared for hospital use, these being made from used paper and envelopes. Fourteen book reviews were conducted in the circulating library during the past year, most of the reviews being given by patients. Much interest was shown by patients in this activity.

Chaplain.—As in former years, Catholic services were carried on in the hospital under the Rev. Stephen J. Hogan, who functioned at full-time capacity, conducting services, hearing confessions, administering the sacraments and making formal visits to patients. Of approximately 2,000 Catholic patients at St. Elizabeths Hospital, 1,000 were responsive to the spiritual administrations of the chaplain. The

Catholic chaplain was available for calls 24 hours of the day. Seven thousand three hundred calls were made on Catholic patients. It was necessary to retain the services of two theological students trained in dealing with the mentally ill to assist with this work.

During the past year the Washington Federation of Churches made available the services of the Rev. Ernest E. Bruder as full-time Protestant chaplain. Worship services were held twice each Sunday of the year, one in Howard Hall. An over-all of 140 services were held for patients, a total attendance of 13,869. Interviews were given to 766 new admissions, many of the patients receiving intensive interviews over varying periods of time upon the request of various members of the staff, the clergy and their families.

Seventeen theological students and clergymen were given a course in clinical pastoral training. The value of training theological students in psychiatric fundamentals as a means of improving their understanding of human behavior is quite evident and the hospital welcomes the opportunity to assist in this aspect of training. Beginning with the month of May of this year the Rabbinical Council of Washington has made arrangements to conduct regular Jewish services in the morning of the first Thursday of each month. Representatives of the Jewish Welfare Board have rendered assistance and made many visits to patients of this faith. Dr. K. Dermstretter devotes 1 day each week for visiting patients throughout the hospital.

Through the generosity of the Soroptimist Club of Washington the hospital received a beautiful new Everett Orgatron. This instrument has brought about a great improvement in the congregational singing during services. Through the courtesy of Father Stephen J. Hogan the organ formerly used in Hitchcock Hall is now available for the Howard Hall services. In the smaller chapel this organ has been most useful. The chapel in Hitchcock Hall has recently been painted and this has added much toward providing an atmosphere of worship. Howard Hall chapel is in the process of being repainted and repaired.

Both the Protestant and the Catholic chaplains call attention to the inadequacy and unsuitability of the present room (basement of Hitchcock Hall), which is used for the various religious services, and they recommend that a chapel be built which would in a way approximate the normal facilities available to men and women outside the hospital. They have called attention to the fact that a hall which is used during the week for various and sundry kinds of meetings does not fulfill such conditions. The erection of a suitable chapel dedicated exclusively for worship would benefit both patients and employees of the hospital.

Red Cross.—As in former years, the Red Cross has continued an intensive program of recreation and social activities for the benefit of our patients. In cooperation with the hospital the Red Cross unit has built up two services, one in psychiatric case work and one in recreation and arts, probably superior to those found in any other mental hospital in the country, public or private. All service patients were referred to social service on admission. Experienced case workers obtained histories from visiting relatives, and adequate and prompt case work was rendered in each case. The work of the psychiatric social worker in charge of the claims service was carried on very efficiently and was coordinated with the Veterans' Administration and the Navy. The recreational program for patients during the past year was very extensive: moving pictures, dances, concerts, shows, bands, carnivals, and field days were arranged. Recreation has been carried to a large number of wards and moving pictures have been presented there for patients who were not well enough to attend the activities given in the recreation hall. A number of patients were given an opportunity to attend the Water Gate concerts, big league baseball games, "legitimate" theater and ice skating carnivals, these arrangements being made for the Red Cross unit by the recreational committee of the Camp and Hospital Council.

An extensive outdoor program, with baseball, volley ball, badminton, and various other sports, was carried on. The hobby shop, formerly under the supervision of the arts and skills volunteers, functioned during the past year under the guidance of an experienced trained recreation worker in conjunction with the occupational therapy department of the hospital, who helped the patients to work out decorative materials and devised other recreational events. Concerts, at which such well-known artists as Rubinstein, Spalding, Firkusny, and Piatogorski gave their services, were held once a month under the auspices of the Red Cross unit which were greatly appreciated by the patients and hopsital personnel. We are greatly indebted in this regard to Mrs. Victor Babin (Vitya Vronsky), who not only gave generously of her time but who with her husband gave a benefit recital to create a fund to defray the traveling expenses of the visiting artists. A varying number of volunteer workers have assisted and an extensive recreational program was carried on at the hospital under the supervision of the Red Cross unit. The following Red Cross volunteer units have been very active during the past year:

Motor Corps.
Canteen Service.
Hospital Recreation Corps (Gray Ladies).
Camp and Hospital Council.

The Gray Ladies deserve special commendation for their assistance. During the 3 years of the war they received and were the first persons to greet 50,000 relatives calling at the hospital. Many gifts were received by the Red Cross unit for the benefit of the patients and the following deserve special attention: A number of portable pianos have been given either to the Red Cross or to the hospital through the Camp and Hospital Council of the District of Columbia. Senator Davis presented a Magnavox from the Loyal Order of the Moose. The Soroptimist Club, as previously mentioned, installed a beautiful electric organ in the chapel of Hitchcock Hall with loud speaker outlets for the theater. They also furnished a teacher to help train the patients to play this instrument. All the instruments for our orchestras were also given by generous friends of the hospital.

The field director and deputy field director of the Red Cross have participated in the hospital teaching program for Navy doctors, nurses, corpsmen, and attendants. Until December 1945 the Red Cross unit conducted weekly classes (sometimes as large as 250), for Red Cross trainees from American University, for orientation. In April 1945 a course for the specific training of hospital workers for service in the field of psychiatric social work was started, and at the present time 140 students are in attendance. In cooperation with the hospital staff, instruction was given to graduate generic social workers for a 6-week period. It is estimated that approximately 3,000 Red Cross personnel have been students at this hospital for varying periods of time during the war and in this subsequent postwar year.

Medical and Surgical Department

This department cares for patients from the various psychiatric wards who are suffering from acute medical and surgical conditions. As mentioned in the last annual report, this department was handicapped because only a part-time surgeon and internist were available since the regular surgeon was on military leave and the vacancy made by the resignation of the former internist could not be filled on a full-time basis. It is gratifying to report improvement in that situation. On February 1, 1946, the full-time surgeon returned to the service from military leave; however, he was retired from service because of disability on June 29, 1946. This position was promptly filled by a former veteran, who will assume his duties about July 15. A full-time internist was appointed December 3, 1945, and another physician, who had been in charge of the Antiluetic Clinic, returned from military leave. In February he resumed his former activities. Another member of the medical staff was added to that department who is to be in charge of the neurologic work of the service and of R Building (for convalescent medical and surgical cases). The above-named changes have greatly improved the medical care and attention given our patients.

The shortage of nurses throughout the United States has continued during the past year and this was keenly felt by this department, but every effort has been made to care adequately for the patients and we hope that additional nurses will become available in the near future.

In liaison with some of the outstanding specialists in the city, weekly clinics have been inaugurated in cardiology, gastroscopy, and in the diagnosis and therapy of intrathoracic diseases other than those of the heart.

Two thousand six hundred forty-three patients were admitted to this department during the fiscal year, 354 of that number being employes. Thirty-nine thousand and fifty-six visits were made to the various clinics of the hospital, and of that number 9,381 were made by employes. It is regrettable to note that the physiotherapy department has not been in operation since February 2, 1946, due to the resignation of the previous physiotherapist by reason of illness and inability on the part of the hospital to contact a suitable applicant for this position.

Antiluetic clinic.—Five thousand three hundred fifty-two patients were treated in this clinic. The total number of visits was 7,452, including 17 employe visits.

Tuberculosis service.—As in previous years, every effort has been made by the hospital to reduce the incidence of tuberculosis in the institution and to detect such cases as early as possible. At the end of this fiscal year we continued to have the lowest number of active tuberculosis cases under treatment. Every effort has been made to give each patient the benefit of modern treatment compatible with his mental condition. Pneumothorax therapy has been regularly carried out in appropriate cases, and thoracoplasty has been done on a few selected cases. Extra nourishment and special diets were carefully provided when necessary, every patient receiving a complete physical survey every month and an additional clinical survey every 3 months. The usual precautionary measures in vogue in modern sanatoria for protection of employes have been carried out in this hospital.

Equipment and material.—A considerable amount of new apparatus and instruments was acquired during the past year, including a set of instruments for bronchoscopy, a set for brain surgery, Wangensteen suction drainage sets for gastrointestinal use, penicillin nebulizer, etc. The installation of a new deep therapy X-ray apparatus, which was purchased the previous year, was completed in February 1946. It is a fine piece of equipment and is basically quite satisfactory.

A new telephone switchboard and several additional Chesapeake & Potomac telephones were installed within the last month and fill a very urgent need. Two hundred units of desiccated plasma were acquired by the hospital through the District of Columbia Health

Department from the Red Cross and are now in storage in our plasma bank.

The trend which has been going on for the past few years in regard to changes in drugs and medicaments in use has continued. As newer and allegedly more efficient drugs and medicines are perfected and get on the market they are being obtained and used, while older types are being simultaneously abandoned. Penicillin, which was used very sparingly a year ago because of its scarcity and cost, is now used quite freely since it has become plentiful and relatively cheap. We have not as yet obtained any streptomycin because of its prohibitive price. While the newer drugs are more expensive than the older ones, they are more efficacious and in some instances the decrease in total amounts used for a given purpose is sufficient to balance the increased cost.

It is regrettable to note that since the payment by employees for broken thermometers and syringes was discontinued the number of these articles broken has mounted materially. A check of the breakage for a 2-month period by the physician in charge indicates that the breakage was more than three times what it had been in a previous like period.

In November of 1945 the problem of the elimination of roaches, flies, and other vermin was experimentally attacked with the use of DDT. As this experiment proved highly successful in the various wards of the Medical and Surgical Building, additional power sprayers were purchased, a sufficient quantity of DDT concentrate was acquired and the same method of spraying was carried on throughout every ward and establishment of the hospital. The results have been most gratifying, some of the oldest buildings having apparently become free from any infestations. Plans are being made to repeat this spraying method every 6 or 8 months so the hospital can be kept reasonably free from vermin of all kinds.

Laboratory

The director of laboratories and research reports the following activities for the fiscal year:

A. Bacteriology:	
Cultural studies of autopsies and exudates	1,313
Plasma bank	140
Examination of smears	695
Animals inoculated	27
Animals posted	9
Milk and water examinations	115
B. Serology:	
Blood Kolmer and Kahn	7,660
Spinal fluid Kolmer, total protein, gold, cells, etc	6,230

C. Urine analysis:	
Routine examinations and special tests	29,075
D. Hematology:	
Examinations and tests	11,001
Gastric washings and sputum examinations	8,033
E. Biochemistry:	
Blood analyses and tests—sugar, NPN, cholesterol, total protein, etc	3,725
Functional tests:	
Electroencephalograms	645
Electrocardiograms	846
Basal metabolism rate	130
Miscellaneous tests	320
Histopathology:	
A. Surgical pathology:	
Specimens for one or more organs	138
Sections cut	500
Sections stained	338
B. Post-mortem pathology:	
Autopsies. (Percentage of deaths 67.6)	248
Histopathologic studies of autopsy cases	163
Brains dissected	221
Sections cut	4,021
Sections stained	1,573
C. Accessions:	
Specimens received	11
Sections cut	298
Sections stained, Hortega	237
D. Specimens photographed	19
E. Micrographs	32
Photographic:	
New admissions, films and prints	4,885
Photomicrographs, etc., films and prints	1,849
Motion pictures:	
Lantern slides	104
Motion picture and lantern slide projections	138
Miscellaneous	46

The electroencephalographic division has been closed since May 1, 1946, when the physician doing this work resigned to return to his native country, Argentina. Every effort is being made to fill this existing vacancy.

Research activities.—The clinical and electroencephalographic study of patients who received electroshock treatment was concluded in March 1946. The results were reported at the annual meeting of the American Neurological Association in San Francisco on June 26, 1946. Plans for new studies of the cerebrospinal fluid before and after shock treatment are to be inaugurated.

Other studies in progress.—(*a*) The incidence of tumors in this hospital and the histopathological findings. (*b*) Study of brain lesions found in cases of mental deficiency. (*c*) The study of the therapeutic effects of Gynergen (Ergotamine tartrate), in acute emotional reactions, particularly in anxiety states, which was carried on in the Men's Receiving and Women's Receiving Services, has not revealed any encouraging results. It should be stated, however, that the drug was tried only in a small series of cases. (*d*) Continued studies of quantitative distribution of carbonic anhydrase in the central nervous system, using mainly our autopsy material, but also brains from the outside and animal brains.

Training program for interns and residents in psychiatry.—The program of lectures and clinics in psychiatry and neurology initiated during the war years mainly for the benefit of Navy physicians in training in our hospital, has continued during the greater part of the fiscal year, but within the last months has been modified to meet the need of the hospital residents in psychiatry in accordance with the requirements of the American Board of Psychiatry and Neurology. The program is designed to supplement training on the psychiatric wards, the diagnostic admission and general staff conferences. Senior members of the hospital medical staff and specially qualified outside lecturers participate in the above program. The hospital contributed both instructors and clinical and laboratory facilities to the postgraduate course at the George Washington University School of Medicine, in the spring of 1946.

The Medical Society of St. Elizabeths Hospital, which was founded in 1937, held its ninth annual meeting at the hospital on April 26 and 27, 1946. The 2 days of scientific meetings were made up of 20-minute essays by various prominent members of the society, and much active discussion was stimulated. The scientific meeting was concluded by a symposium entitled Treatment in Psychiatry, in which various treatment techniques were presented and discussed. The annual banquet of the society was held in the Mayflower Hotel on the evening of April 27, with the superintendent of the hospital acting as toastmaster. These annual meetings of the society have come to be a very important part of the hospital program, as much of the psychiatric research of the members of the society is reported at these meetings. Arrangements are now in progress for the publication in the "Quarterly Review of Psychiatry and Neurology" of many of the scientific papers presented at this meeting.

During the year a considerable number of visitors have honored the hospital. Many of these visitors are psychiatrists or other workers in the field of mental hygiene who are interested in learning of the methods employed in this hospital. Such visits are a stimulus to the staff of the hospital, and instructive as well. A few of these visitors have remained for a substantial period and have given valuable service to the institution. During the year visitors were received from the following 14 countries outside the United States: Argentina, Belgium, Bolivia, Brazil, Canada, Chile, Cuba, Denmark, France, Mexico, Paraguay, Spain, Syria, and Turkey.

Administrative Department

Industries.—Operation of hospital industries maintained the general production level of years immediately previous although scarcity of materials, notably leather for shoe manufacturing and textiles for bed and body clothing manufacture has entailed some difficulty. All hospital requirements of shoes, brooms, mattresses, pillows, and several other items were fulfilled, however.

Farm.—Farming operations, handicapped by lack of sufficient space nevertheless furnished a medium of healthful industrial therapy for a considerable number of patients in addition to producing a sizable portion of the hospital's subsistence requirements. As of the end of the year the dairy herd consisted of 196 milking cows, 81 dry cows, 10 bulls, 116 heifers, and 68 calves, or a total of 471 animals. The herd produced 234,367 gallons of milk during the year, production being somewhat below normal due in large part to the quantity and quality of feed available. The swine herd consisted of 1,232 animals at the close of the year. One hundred and eighty-one thousand nine hundred and twelve pounds of pork and 2,275 pounds of pork liver were furnished for hospital consumption during the year. The greater portion of the herd was fed on hospital garbage, in this way eliminating disposal problems. The poultry flock consisted of 1,655 hens and 1,304 chickens at the end of the year. This project furnished 10,112 pounds of meat and 18,087 dozens of eggs during the year. In addition to the foregoing, the farm produced approximately 18,815 bushels of green vegetables for kitchen use.

Personnel.—The most significant development in personnel administration during the year was the institution of the 40-hour workweek, a change which entailed substantial changes in duty schedules and the employment of additional personnel. On account of recruitment difficulties it was necessary for the hospital to effect the change gradually throughout the year. The hospital full-time personnel increased from 1,758 on June 30, 1945 to 2,160 at the close of 1946 or 1 employee to each 3 patients representing a net increase of 402. It should be noted that even this considerable increase is not sufficient to restore the personnel ratio to a prewar status. On a purely mathematical basis, a reduction in hours from 48 to 40 per week (16⅔ percent) should call for a ratio of 1 employee for each 2.8 patients to equal the previously observed rate of 1 employee for each 3.4 patients. Actually, since employees are not themselves divisible, a mathematical formula is inadequate and the actual increase needed is greater than the formula would indicate. Furthermore, with the rapidly increasing demands for more elaborate personnel, budget, and financial procedures, a substantial increase in the number employed in those fields has been necessary. A considerable increase in ward and medical personnel is still needed to insure adequate attention to the patients and repair of those standards which perforce suffered damage during the war. Personnel changes totaled 1,246 appointments, 162 returns from military leave, 1,049 separations and a decrease of 43 in the number of personnel in leave without pay status. Veterans in employment status at the end of the year totalled 570. Separations by retirement totaled 37, of which 12 were on account of age and 25 on account of disability.

With the reduction in admissions from naval sources the assignment of naval medical officers, nurses, corpsmen, and Waves to the hospital for training purposes declined greatly in number.

Changes in medical staff.—On July 29, 1945, Dr. Samuel A. Silk was promoted from the position of clinical director to that of first assistant physician, succeeding Dr. R. H. Guthrie. On the same date Dr. Addison M. Duval was promoted to the position of clinical director vacated by Doctor Silk.

Purchasing office.—Continued scarcity of many items used in large quantities by the hospital has at times created considerable difficulty in meeting the minimum needs of the institution. The acquisition of sufficient textile and clothing items not only to meet current consumption but also to cope with a deficiency which developed through the war years has placed a heavy burden on this department. Every effort has been made to make use of Government surplus supplies whenever and wherever offered. This, together with diligent attention to market conditions and trends, has sufficed barely to meet the needs with respect to a large number of the scarcer commodities.

Budget and finance office.—During the year just ended the pay roll unit was transferred to the budget and finance section from the personnel section. The duties of the pay roll unit increased due to the operation of the Federal Employees' Pay Act of 1945, involving individual calculations for overtime, night, and holiday duty.

During the year this office handled accounting operations in connection with receipts and expenditure of $7,678,621 in operating funds, in addition to patients' trust fund receipts aggregating $335,756 and disbursements aggregating $527,019.

Chief clerk's office.—The volume of the work of this office is indicated by the detail set forth under the heading Movement of Population in this report. The processing of the largest number of discharges and transfers in the history of the hospital was accomplished with a minimum of personnel. Difficulty has been encountered in obtaining the services of sufficient transcribing machine operators to insure prompt handling of clinical record material, though conditions in this respect are improving.

Guard force.—Routine measures for prevention of losses and protection of patients and property continued throughout the year requiring additions to this force due to the institution of the 40-hour workweek.

Fire department.—The department attended to 26 alarms during the year, property damage totaling $227.91. Regular inspection by members of this department for prevention or elimination of fire hazards continued as routine measures, as well as periodic inspections of extinguishers and other fire-fighting equipment.

Laundry.—Scarcity of building materials has delayed replacement of this old and hopelessly inadequate building. Continuous attention is necessary to keep much of the old machinery in the constant operation which is necessary to keep abreast of the load, which totaled 7,617,402 pieces for the year. It is hoped that the construction of the new laundry and storeroom, long delayed, may soon be started.

Garage.—The maintenance of motorized equipment required increased attention during the year owing to the unavailability of replacement items. All trucking and hauling needed by the hospital during the year was furnished by this department in addition to the conveyance within and without the hospital reservation of 36,372 patients, including 1,358 ambulance stretcher cases.

Dietary service.—Occasional shortages of certain subsistence supplies did not prevent consistent serving of a satisfactory and nourishing diet. The contribution of hospital farming operations was of particular value during periods of shortages, particularly as regards the pork and chicken production referred to previously. All breadstuffs used were produced by the hospital bakery, and approximately 43,000 gallons of ice cream were manufactured at the hospital. Two hundred and seventy classes in nutrition and diet therapy were held during the year as part of the school of nursing curriculum.

Vacancies exist in positions of dietitian and difficulty has been encountered in obtaining replacements. In the meantime, responsibility for meal planning and preparation in the kitchens where the vacancies exist has been successfully carried on by the available staff.

Construction and maintenance.—Construction work on the new warehouse and laundry building and also the building for infirm patients authorized by law and referred to in the 1945 report has been delayed owing to scarcity of materials.

A new home for student nurses erected by the Federal Works Agency under provisions of the Lanham Act was occupied by the hospital on June 21, 1946, with appropriate ceremonies. In honor of the founder of the American Red Cross, the building was named Clara Barton Hall. This building accommodates 98 students, together with 2 house mothers, and contains every means of comfortable living for this group.

The Labor-Federal Security Appropriation Act for fiscal 1946 provided for an extensive survey of the buildings and grounds of the hospital for the purpose of developing plans for future construction, alteration, and replacement. This survey is part of the program referred to in last year's report in connection with renovation and new buildings.

Maintenance and repairs have suffered through the war years due to lack of personnel, supplies, and equipment. The deficiencies thus accumulated will be met as rapidly as circumstances will permit.

Needs of the Hospital

The most urgent needs are an increase in nurses and ward attendants, and improvement in the quality of ward personnel.

Many recommendations for improvements throughout the hospital made during the past few years could not be carried out due to the shortage of materials during the war and postwar periods. They are all a matter of record but the most urgent ones are being repeated here:

Cafeteria facilities for buildings CT Nos. 7 and 8: These two buildings were finished during the early war years and because of shortage of necessary equipment the buildings were finished without cafeteria facilities, with the result that patients from eight different wards located on two floors must be conducted a long distance through tunnels to the cafeterias on two floors of CT–3 building. The cafeterias for CT–3 are quite inadequate for this purpose. Several shifts must be used in feeding the patients, resulting in great confusion to patients and ward personnel. The chief difficulty, however, is due to the fact that with this arrangement the utilization of the two buildings for the real needs of the hospital is greatly lessened, since only a certain type of patients, namely, physically ambulant and mentally quiet, can be housed in those buildings, whereas our greatest need is for patients belonging to the elderly and physically feeble class and mentally disturbed. It is strongly urged that cafeterias be installed in these two buildings at the earliest possible moment.

Howard Hall building.—This is the maximum security building which cares for the most dangerous patients, white and colored, as well as those under criminal charges. It was established as a separate unit more than 30 years ago when the institution was one-third its present size and when only the most advanced psychotic patients were sent here from jails or penitentiaries. During the past 10 or more years there has been a tendency to look upon certain crimes and misdemeanors as an expression of disease requiring treatment rather than punishment or isolation. The result is that the hospital is admitting more and more acute and recoverable patients, sent here through various courts. Howard Hall is inadequate to meet the above demands; it lacks adequate hydrotherapeutic, recreational, occupational, and various other facilities. There is an urgent need for a building of modern design, of about 400-bed capacity, to enable us to classify, treat, and care for acute psychotic and recoverable patients.

West Lodge service.—This department (for colored male patients), is a combination of receiving and continued treatment units. The admission rate of colored men has been steadily increasing. The receiving building (West Lodge) was originally erected in 1856. It is quite inadequate as a receiving building and is lacking in the facilities of a receiving department. A new building for the reception of colored men is therefore urgently recommended. A modern building of 400-bed capacity with the necessary facilities to enable us to care for the acute recoverable patients is urgently needed.

Que service.—Immediate evacuation of Oaks A, B, and C (for colored women) and replacement of those buildings with modern facilities are urgently needed. These buildings are not only a fire hazard but are overcrowded and unsanitary.

Dental clinic.—Facilities in this department are inadequate for hospital requirements and the need for improvement is quite urgent. With present facilities the hospital is unable to render the service to which our patients are entitled. There is need for at least six dentists, properly equipped rooms for two dental hygienists, facilities for mechanical dentistry, and an office for the clerk who keeps the necessary records and takes charge of all appointments.

Legislation

The suggestions contained in previous annual reports are renewed, namely, legislation providing for the care of (1) continentals becoming mentally ill in the Philippines and (2) United States citizens without State residence becoming mentally ill in countries other than Canada; (3) civilian employees of the Army Air Service, Tank Corps, and Motor Transportation Service; and (4) family care of patients.

Late in the year a bill to authorize the admission of voluntary patients was filed in the Congress, but was not reported out of committee. This type of legislation is found in all but 14 states of the Union, and is urgently needed here. As it is, a person who recognizes that he is mentally ill and in need of hospital treatment cannot enter St. Elizabeths Hospital unless after a painful and complicated series of legal procedures he is declared insane and deprived of his civil rights. It is to be hoped that the commitment procedures in the District of Columbia may some day be brought into line with those of the more progressive States; in the meantime, a voluntary admission law would go far to improve the lot of the mentally ill of the District.

STAFF PUBLICATIONS FOR THE FISCAL YEAR JULY 1, 1945, TO JUNE 30, 1946

OVERHOLSER, WINFRED, *Superintendent:*

Mental Abnormality and Crime, By L. Radzinowicz and J. W. C. Turner (eds.). (Book Review) Psychiatry, 8: 365–366, Aug. 1945.

Foreword. In Group Psychotherapy: A Symposium. Beacon, N. Y., Beacon House, 1945. (Sociometry 8. 251–252, 1945.)

Psychiatry for Physicians (Editorial) Medical Annals, D. C. 14: 458–559, Oct. 1945.

La Opinion Psiquiatrica Como Testimonio en las Cortes de los Estados Unidos de Norte America, Rev. Argent. Neur. Psiquiat., Rosario, 10: 157–161, 1945.

Psychiatry and the War. Edited by Frank J. Sladen, M. D. Springfield, Ill. C. C. Thomas, 1943. (Book Review) Federal Probation. 9: 44, Dec. 1945.

Administrative, Forensic and Military Psychiatry. American Jour. of Psychiatry. 102: 545–548, Jan. 1946.

Nursing Homes (Editorial) Med. Ann. D. C. 15: 28–29, Jan. 1946.

Zubin, Joseph. Trends of Mental Disease. (Book Review) Psychiatry. 9: 89–90, Feb. 1946.

Commitment of the Mentally Ill. (with Henry Weihofen) Texas Law Review. 24: 307–348, April 1946.

Psychosomatic Medicine. (Editorial) Med. Ann. D. C. 15: 219–222, May 1946.

Commitment of the Mentally Ill (with Henry Weihofen). Amer. Jour. of Psychiatry. 102: 758–769, May 1946.

Psychiatry in Modern Warfare, by Edward A. Strecker, M. D. and Kenneth E. Appel, M. D. (Book review) Amer. Jour. of Psychiatry 102–846, May 1946.

Alcohol, Science and Society, by the Yale Summer School of Alcohol Studies. (Book Review) Psychiatry. 9: 163, May 1946.

ASHBY, WINIFRED, *Bacteriologist:*

Distribution of Carbonic Anhydrase in the Pallium of Rhesus Monkey and Man as Compared with that of Lower Animals, with Schiller, J. Federation Proceedings, Part. 2. Federation of American Societies for Experimental Biology. 5: No. 1, 244, 1946.

BELLAK, LEOPOLD, *Medical Officer:*

On the Psychology of Detective Stories and Related Problems. Psychoanalytic Rev. 32: 403–407, Oct. 1945.

BRUDER, ERNEST E., *Chaplain:*

The Chaplain is Needed in the Psychiatric Hospital. Modern Hospital, 65: 67–68, July 1945.

CHASE, MARIAN, *Dance Consultant, A. R. C.:*

Rhythm in Movement as Used in Saint Elizabeths Hospital. In Group Psychotherapy: A Symposium. Beacon, N. Y.

Chodoff, Paul, *Psychiatric Resident:*

The Combat Induced Anxiety State as Seen After Return to Duty. J. Nerv. and Ment. Dis. 102 : 590–600, Dec. 1945.

Duval, Addison M., *Clinical Director:*

The Shaping of Psychiatry by War, by Rees, John R. (Book Review). American Journal of Psychiatry. 102 : 428, Nov. 1945.

What People Are: A Study of Normal Young Men, by Heath, Clark W. and others. (Book Review) Psychiatry, 9 : 155–156, May 1946.

Eldridge, W. W., *Director of Medical and Surgical Service:*

Studies of the Role of Fungi in Pulmonary Disease. I. Cross Reactions of Histoplasmin (with Olson, B. J. and Emmons, C. W.) Public Health Reports, 60 : 1383–1394, Nov. 23, 1945.

Hagan, Margaret, *Field Director, A. R. C.:*

Psychodramatic Techniques as a Teaching Device in an Accelerated Course for Workers with Neuropsychiatric Patients. (with Edith Wright.) In Group Psychotherapy: A Symposium. Beacon, N. Y., Beacon House, 1945, p. 146–150. (Sociometry 8 : 384–388,1945.)

In Memoriam: Bruno Selby, 1903–1945. In Group Psychotherapy: A Symposium. Beacon, N. Y., Beacon House, 1945. p. 310–311. (Sociometry 8 : 548–549, 1945.)

Hall, Roscoe W., *Director of Clinical Psychiatry:*

Introductory Remarks. Group Psychotherapy: A Round Table Conference, One Hundredth Annual Meeting of the American Psychiatric Assn., Phila., May 16, 1944. In Group Psychotherapy: A Symposium. Beacon, N. Y., Beacon House, 1945. p. 41–44. (Sociometry 8 : 279–282, 1945.)

Herriott, Frances, *Psychodramatist:*

Some Uses of Psychodrama at St. Elizabeths Hospital. In Group Psychotherapy: A Symposium. Beacon, N. Y., Beacon House, 1945. p. 54–57. (Sociometry 8 : 292–295, 1943.)

Ives, Margaret, *Psychologist:*

Interrelationship of Clinical Psychology and Psychiatry. J. Clinical Psychology, 2 : 146–150, April 1946.

Jobs and the Man, by Woodward, Luther E. and Rennie, Thomas, A. C. (Book Review) Psychiatry 9 : 162–163, May 1946.

Karpman, Ben, *Senior Medical Officer:*

A Study in Adolescent Imagery. Amer. J. Orthopsychiatry. 16 : 1–33, Jan. 1946. (Book Review.) Taft, D. R. Criminology. Ment. Hyg. 29 : 527–528, July 1945.

From the Autobiography of a Bandit: Toward the Psychogenesis of So-Called Psychopathic Behavior of Criminal Law and Criminology, 36 : 305-325, Jan., Feb., 1946.

Psychopathy in the Scheme of Human Typology. The Journal of Nervous and Mental Disease. 103 : 276–288, March 1946.

Dream Analysis of a Constitutional Psychopath: Toward the Problem of Differential Dream Analysis. Psychoanalytic Rev. 33 : 84–101, Jan. 1946. Cont. 33 : 215–236, April 1946.

Katzenelbogen, S. *Director of Laboratories and Research:*

Las Shockterapias Rev. Argent. Neur. Psiquiat., Rosario, 10 : 133–156, 1945.

The Marihuana Problem in the City of New York: Sociological, Medical, Psychological and Pharmacological Studies, by the Mayor's Committee on Marihuana. (Book Review.) Psychiatry, 9 : 88–89, Feb. 1946.

KEPECS, JOSEPH G.,[1] *Medical Officer:*

Psychiatric Disorders in Puerto Rican Troops, War Med. 8: 244–249, Oct. 1945.

MANDELL, SIBYL, *Psychiatric Social Worker, A. R. C.*:

The Orientation of Individual Psychology as Applied to the Reading of a Case Study in Criminal Psychopathology. Individual Psychology Bulletin. 4: 104–109, 1945.

MYERS, HENRY J., *Medical Officer*:

Reactive Depression: A Study of 100 Consecutive Cases. (with Von Koch, S.) War Med. 8: 358–364, Nov.-Dec. 1945.

Psychopathology of Psychotic-Like Reactions in the Combat Soldier (with Kiene, Hugh E., Rosen, Harold, and Goldfarb, Walter) The Psychiatric Quarterly, 20: 138–149, Jan. 1946.

OLINICK, STANLEY, *Medical Officer*:

Indirect Group Therapy of Psychoneurotic Soldiers. (With Friend, Maurice R.) Psychiatry 8: 147–153, May 1945.

Therapy Through a Group of Neurotic Soldiers in an Experimental Military Setting. (With Friend, Maurice R.) Amer. J. of Orthopsychiatry, 13: 483–488, July 1945.

SALZMAN, LEON, *Medical Officer*:

The Management of the Mind, by Milton Harrington. (Book Review.) Psychiatry, 9: 161–162, May 1946.

SCHROEDER, SARAH F., *Chief Psychiatric Social Worker*:

Principles of Confidentiality in Social Work (with Anna W. Schneider and others). Committee on Records. American Association of Social Workers, Jan. 1946.

WEICKHARDT, G. D., *Medical Officer*:

Intrathecal Administration of Penicillin in General Paresis. Amer. J. Syphilis, Gonorrhea and Venereal Diseases, 30: 235–241, May 1946.

WILL, OTTO ALLEN, *Lieutenant (MC) U. S. N.*:

The Psychotic Naval Prisoner. U. S. Naval Med. Bulletin, p. 680–689, May 1946.

---

[1] On military leave.

Section Six

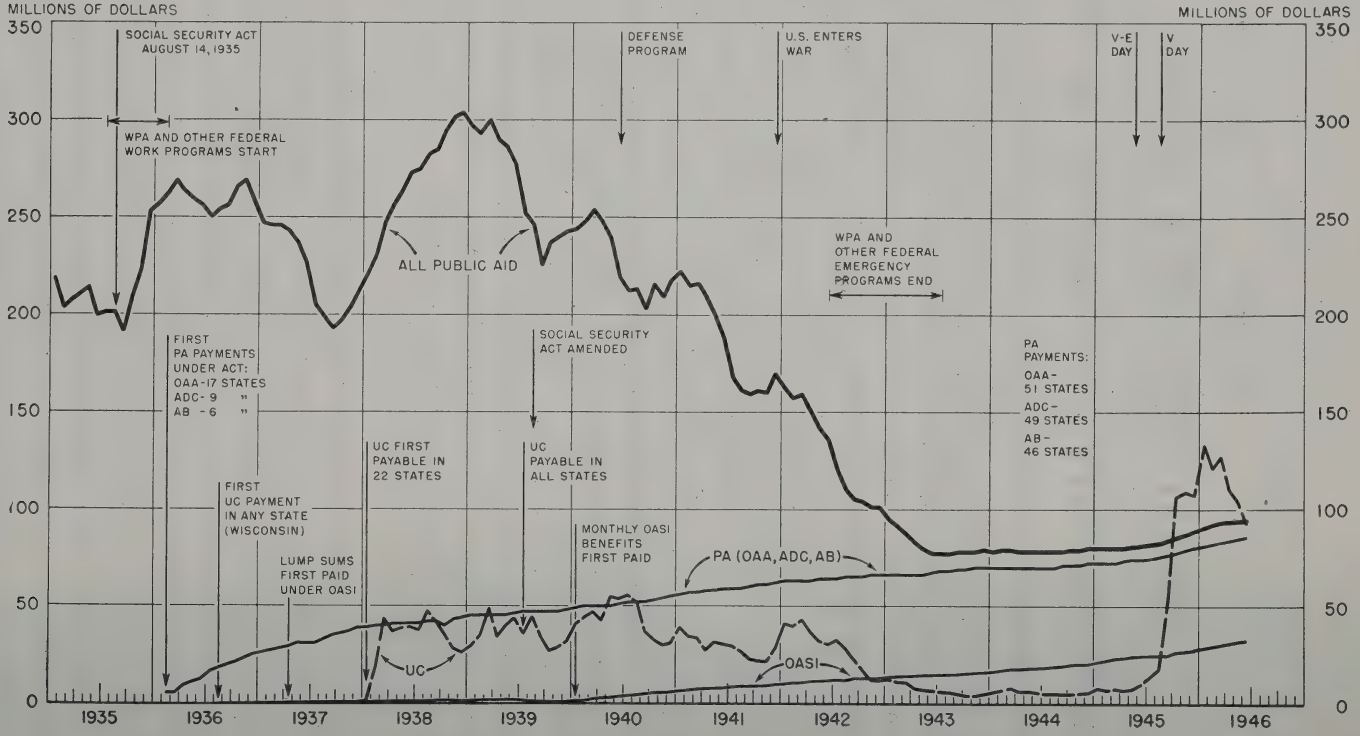
SOCIAL SECURITY BOARD

SOCIAL SECURITY IN A YEAR OF TRANSITION

Opening with victory over Japan, the fiscal year 1945–46 was a year of transition to peace. The United States dismantled the mighty arsenal from which weapons had been shipped and flown to all parts of the globe, and sent home to civilian life most of the millions of men whom it had mustered for battle. In the vast reshuffling of manpower entailed by economic and military demobilization, social security programs provided means of forestalling or alleviating distress and family disorganization that had not been available after any previous war in the Nation's history. For millions of war workers who were laid off, unemployment insurance benefits helped to bridge the change-over to peacetime jobs. Many aged workers and many widows were able to turn to old-age and survivors insurance as a source of basic, assured income when they were let out as the pressure of wartime labor shortages lifted. For some households in which unemployed workers were without sufficient wage credits to qualify for social insurance benefits, public assistance provided a recourse against privations that, in other times, had to be accepted as an inevitable concomitant of postwar readjustment. Public assistance was also available to many families that, during the war, had depended on servicemen's allowances or on aid from relatives who no longer could continue it.

The three major programs with which the Social Security Board has been concerned—the Federal system of old-age and survivors insurance and the Federal-State programs of unemployment insurance and public assistance—have thus played an important part in helping to combat insecurity arising from or aggravated by the reconversion. In the Social Security Act of 1935, however, and its extension in 1939, Congress and the President had regard primarily for the continuing risks of insecurity that normally confront American families year in and year out. They considered the present provisions of the social security law as a foundation on which, with time and experience, a stronger, more comprehensive program would be built. The first 11 years of administration of the Social Security Act showed the sound-

CHART 1.—*Payments for all public aid (public assistance and Federal work programs) and for public assistance and social insurance under the Social Security Act, January 1935–June 1946*



ness of its objectives, the feasibility of attacking insecurity through social insurance and public assistance, and the general public acceptance of these means of helping to maintain the economic independence of families in the United States. Experience in actual operations also showed that it is both necessary and feasible to strengthen and extend the existing program and to link it more closely with other measures to promote the well-being of families and of the Nation.

In May 1946, in Reorganization Plan No. 2, President Truman proposed that such an integration and development be facilitated through transfer to the Federal Security Administrator of the functions of the Social Security Board and its Chairman, and of certain responsibilities for health and welfare that had been lodged in governmental units outside the Federal Security Agency. At the same time, the Social Security Board, a three-member policy-making body responsible to the Administrator, would be abolished.[1] This annual report, the last to be made by the Social Security Board, therefore not only summarizes operations administered by the Board during the fiscal year but also outlines briefly general views on social security objectives and means of attaining them that have been developed over more than a decade in the course of operations and analyses for which the Board was responsible under the Social Security Act.

In the opinion of the Board, no time should be lost in taking every feasible step to extend the present protection of the social security program to all households in the United States, and to wipe out limitations and inequities that can no longer be justified by logic or necessity. Likewise, the Board believes, the present offers an exceptional opportunity to extend the scope of the program and remedy its inadequacies. For a people, as for an individual, it is prudent to provide in good times against adversities that almost surely will arise sooner or later.

Summary of Recommendations

During the fiscal year, extensive hearings on social security problems and proposals were held by congressional committees of both the Senate and the House. These hearings dealt with emergency situations created or accentuated by wartime developments and with basic extension and improvement of the social security program. Many proposals for changes in the program were laid before Congress during the fiscal year, but at the end of the year it seemed probable that the pressure of immediate emergencies in national affairs would preclude comprehensive legislation on social security at the current legislative session.[2]

---

[1] Reorganization Plan No. 2 became effective July 16, 1946.

[2] For a summary of subsequent Federal legislation, see pp. 517–522.

In its *Tenth Annual Report*, the Social Security Board briefly summarized the recommendations dictated by experience and study of a decade. Developments during the eleventh year, outlined in the following pages and subsequent chapters of this report, have continued, in the opinion of the Board, to evidence the need and feasibility of the major changes previously recommended. No matter how great the Nation's future success in maintaining high levels of employment and earnings, families will have to meet the risks to security arising from the interruption or permanent loss of earnings in disability and old age, and in at least the "frictional" unemployment that reflects change and development in a dynamic economy. Future progress in improving health and preventing needless suffering and premature death will depend largely on the ability of all the population to obtain adequate individualized services for the attainment of maximum physical and mental efficiency and for the diagnosis and care of sickness.

More than a century ago, a committee in the British House of Commons pointed out the most economical way of guarding against risks that face large numbers of the population. "Whenever there is a contingency," the committee declared, "the cheapest way of providing against it is by uniting with others, so that each man may subject himself to a small deprivation, in order that no man may be subjected to a great loss. He, upon whom the contingency does not fall, does not get his money back again, nor does he get for it any visible or tangible benefit; but he obtains security against ruin and consequent peace of mind. He, upon whom the contingency does fall, gets all that those, whom fortune has exempted from it, have lost in hard money, and is thus enabled to sustain an event which would otherwise overwhelm him."

This is the principle on which social insurance is founded, with the added consideration that social insurance not only protects the individual but also, through benefiting large groups and contributing to the morale of still larger numbers, helps to assure the security and development of the Nation as a whole. Insurance has long been accepted by Americans as a method of guarding against risks to their individual lives and possessions. Social insurance in the United States, at the end of little more than a decade, has proved its feasibility and value as a means of enabling millions of persons to attain a basic minimum of protection that would not have been available to them in any other way. The war years showed dramatically that the overwhelming majority of Americans prefer jobs to insurance benefits or assistance. At the same time, industry and the economy in general benefit from the greater sense of confidence that exists when workers know they will have some means of livelihood if age or other circumstance beyond their control cuts off their ability to earn. Assurance of a basic minimum protection in adversity stimulates rather than destroys the interest of individuals in making what additional provision they can for themselves; any savings they can put by and any additional insurance they can purchase individually become more worth while.

The Board believes that comprehensive and adequate provision for contributory social insurance is essential to national and individual security in the circumstances of modern life. It believes also that such provisions preserve the traditions of democracy and individual enterprise that the United States has cherished since its founding. Social insurance can make it possible for the great majority of all families to maintain their economic independence when they meet with common risks over which they have little or no individual control.

At the same time, there is and will continue to be need for comprehensive and adequate provision for public assistance. Even under complete coverage of risks and of population, some families will fail to qualify for insurance benefits and will require public assistance. Benefit scales under an insurance program, furthermore, are necessarily designed in accordance with the usual circumstances of beneficiaries and the funds available to the system from contributions. Since some individuals and families will meet with a catastrophe or series of catastrophes in which their requirements exceed the benefits for which they qualify, they may need supplementary assistance.

A Comprehensive Program of Social Security

To attain the objectives of a social security program, the Board believes, social insurance and public assistance, separately or in combination, must provide against all common hazards to livelihood among all groups of the population. Our present provision for social security in the United States is seriously deficient in both these respects. Moreover, existing arrangements to safeguard or enhance the economic security of families and individuals have grown up at different times and places and for various separate groups. As a result, the character and extent of present protection, when it exists, differ greatly for persons in essentially similar circumstances. Our social and political traditions as a democracy and the continuing progress of our free competitive economy require, in the opinion of the Board, a broader, sounder, and more equitable basis for ensuring individual and national well-being. To this end, the Social Security Board recommends the establishment of:

A comprehensive basic national system of contributory social insurance, covering all major risks to economic independence and all workers and their dependents threatened by such risks. The program would include insurance against wage loss in periods of disability and against costs of medical care, for which no general provision now exists in the United States, as well as old-age and survivors insurance and unemployment insurance, with benefits related to past earnings and with provision for additional benefits for dependents. It would be designed to close existing gaps in the coverage of both persons and risks, to remove present inequities in the protection of workers and the financial burdens of employers, and to provide a consistent relationship among insurance provisions for the various risks and between provisions of the basic system and of supplementary special systems for particular groups. As compared with separate programs to meet particular risks, such a system would reduce administrative cost and reporting burdens and simplify arrangements as they affect workers, employers, and public agencies.

A comprehensive program of public assistance, on a Federal-State basis, under which payments and services financed from Federal and State funds would be available to any needy person in the United States, irrespective of the reason for need or the place of residence. The Federal financial contribution to such a program should be designed to remove the great disparities now existing in the treatment of various classes of needy persons and to reduce the disparities in the treatment of persons who are in like circumstances but live in different parts of the country. It should also be designed to remove serious present inequities in the relative burdens borne by States and localities in financing public assistance.

Recommendations for particular programs, most of which are discussed in greater detail in subsequent chapters of this report, are, in summary:[3]

Old-Age and Survivors Insurance

Coverage of all gainful workers, including agricultural and domestic employees, public employees and employees of nonprofit organizations, railroad employees, and self-employed persons, including farmers and small businessmen.

Legislation to prevent servicemen from losing the protection of the old-age and survivors insurance system because of service in the armed forces.

Reduction of the qualifying age for all women beneficiaries from 65 to 60 years.

Changes in the average monthly wage and benefit formula to increase benefit amounts, particularly for low-paid workers.

---

[3] For a summary statement of legislation after the close of the fiscal year that bears on some recommendations, see pp. 517–522.

Increase from $3,000 to $3,600 a year in the maximum amount of earnings which are subject to contribution and counted in computation of benefits.

Increase in the amount of earnings a beneficiary may receive in covered employment without suspension of benefits.

Greater uniformity in defining, for purposes of the insurance system, family relations and conditions of dependency that qualify members of a worker's family for benefits.

Benefits during periods of extended or permanent disability, like those for old-age retirement.

Provision for ensuring uniformity in coverage decisions relating to liability for contributions and eligibility for benefits, which are based on identical language in the Social Security Act and Internal Revenue Code but are made by two separate Federal agencies—the Bureau of Internal Revenue and the Board.

Adoption of a long-range plan for financing old-age and survivors insurance which looks toward an eventual tripartite division of costs among employers, employees, and the Government.

Unemployment Insurance

Extension of the Federal Unemployment Tax Act to all employers of one or more workers in covered industries and to many excepted employments.

Provision, under Federal law, of unemployment benefits for seamen and for employees of the Federal Government on a uniform basis irrespective of the State in which they have worked.

If a Federal-State system of unemployment insurance is continued:

Abolition of the credit-offset features of the present tax and substitution of a straight Federal tax of 1 percent of covered pay rolls, from the proceeds of which matching Federal grants to the States would be made for both benefits and administration.

Provision for minimum benefit standards as a condition of tax-offset credit (including additional credits). Among such standards would be:

> Extension of unemployment insurance coverage to all employees in industries covered by the Federal tax.
>
> Provision of a *maximum* weekly benefit amount of at least $25 for the worker with dependents, for workers whose past earnings entitle them to the maximum.
>
> Provision of as much as 26 weeks' duration of benefits for all workers eligible for benefits whose unemployment extends over so long a period.
>
> Provision that disqualifications for voluntary leaving without good cause, discharge for misconduct, or refusal of suitable work

should entail only postponement of benefits for not more than 4 weeks rather than cancellation of benefit rights or reduction of benefits.

Definition of good cause for voluntary leaving or for refusing suitable work to include good personal reasons, not merely causes attributable to the job or the employer.

If the credit-offset feature of the present tax is retained, reduction of the tax to 2 percent and change in the additional-credit provisions so that employers may obtain rate reductions either through experience rating, State-wide reduction, or some other method.

If minimum benefit standards are adopted, permanent provision through a reinsurance fund—rather than loans, as now temporarily provided—for States whose unemployment funds are low.

Additional Insurance Provisions

Provision under Federal law for cash benefits to insured workers and their dependents during both temporary disability (less than 6 months) and extended disability (6 months and over).

Insurance against costs of medical care, including payments to physicians, dentists, nurses, hospitals, and laboratories, with provision for decentralization of administration and utilization of State administration.

Public Assistance

Special Federal aid to low-income States for assistance, administration, and welfare services to enable States with relatively low economic resources to develop adequate public welfare programs.

State distribution of available Federal and State funds to localities in accordance with their needs.

Deletion of the Federal matching maximums for individual payments of aid to dependent children, and deletion or increase of such maximums for old-age assistance and aid to the blind.

Federal grants-in-aid to States for general assistance to any needy person, irrespective of the cause of his need, as well as for old-age assistance, aid to the blind, and aid to dependent children.

Extension of aid to dependent children to permit Federal participation in assistance to a parent or other person assuming responsibility for any child who is living in a family home and is needy for any reason whatsoever. Substantially the same objective could be achieved through the Board's recommendation on Federal financial participation in general assistance. One or both changes, however, are urgently needed to assure more nearly adequate provision for needy children. In addition, Federal financial participation should be available, under appropriate auspices, in the cost of foster-family care for children who have no parent able to care for them.

Abolition of State residence and citizenship requirements as a condition of eligibility for assistance under State plans approved under the Social Security Act.

Elimination, as a condition of Federal grants, of State requirements for transferring title or control of property by an applicant or recipient to the State or locality. This action would not preclude any agency from claiming from the estate of a deceased recipient recovery of assistance formerly paid.

Extension of Federal grants-in-aid for all assistance programs to Puerto Rico and the Virgin Islands.

Federal financial participation in the costs of medical services made available to needy persons under State public assistance programs and in assistance payments to needy sick persons who reside in public or private medical institutions other than mental hospitals and tuberculosis sanatoria.

Federal financial participation in all types of welfare services administered by the staff of the public welfare agency to help families and individuals become self-supporting, make fuller use of community resources, or solve individual problems in family or community adjustments. Such services should be available, when requested, to recipients of assistance and to others not needing or requesting financial aid.

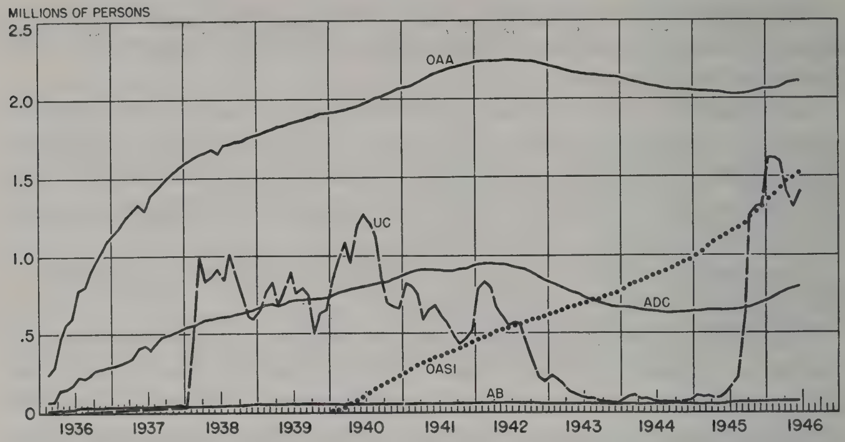
Definition by the States of the content of living to be afforded needy persons through assistance and their own resources, if any, and the development by States of standards that will assure equitable treatment of needy persons throughout the State. Consideration by the States, in determining the amount of assistance, only of resources actually available to the individual.

Unification of the administration of State public assistance programs at both State and local levels as a condition of Federal grants.

Social Security Risks and Resources in 1945–46

Fortunately for the Nation, the shift from war to peace was achieved more rapidly and with less strain than many persons had anticipated. Unemployment increased in 1945–46, but it exceeded only slightly the volume that in normal times reflects the movement of workers between jobs. The flow of income to individuals, essential to the maintenance of purchasing power and general economic equilibrium, dropped only negligibly. Provisions for family security in the transition year 1945–46 gave varying protection against wage loss. Most unemployment was compensated under State unemployment compensation laws and the Servicemen's Readjustment Act. Social

CHART 2.—*Social insurance beneficiaries and public assistance recipients under the Social Security Act, February 1936–June 1946* [1]



[1] Excludes persons receiving lump-sum payments under the old-age and survivors insurance program.

insurance and related benefits were paid in June 1946 to about one-fourth of the aged persons and widows under age 65 who were not receiving wage income, and to about one-fifth of the children under age 18 whose fathers had died. Relatively few families in the United States had insurance protection against economic risks arising from sickness and disability. The inadequacy of the protection of family security reflected in part the absence of provision against certain hazards, and in part the restricted coverage and immaturity of programs established too recently to reach more than a minor segment of the population for whom the risk had already occurred. As a result, public assistance assumed burdens out of proportion to its place in a fully developed program of family security.

Unemployment

Unemployment was the economic risk which caused the most acute concern as the war drew to a close. The long depression of the 1930's had shown the price paid in human waste and suffering when jobs are lacking. About 2 million war jobs were terminated between VE-day and V-day, and about 10 million in the year that followed Japan's surrender. Some 11 million men discharged from the armed forces entered the civilian labor force during the same period. The very substantial accretions to the supply of labor available for peacetime production and services did not, however, result in large-scale unemployment. From August 1945 to March 1946, the peak month in the fiscal year, the number of unemployed persons more than tripled, but in June the level of unemployment was still below that of any month between 1930 and the middle of 1942. The availability of purchasing power through payments to veterans, social insurance and assistance programs, and wartime savings helped avert secondary unemployment by maintaining public confidence and bridging over the readjustments necessary for many individuals and families.

For the majority of workers who lost their war jobs, unemployment was brief. About one-fourth of the unemployed persons interviewed in February by Census Bureau representatives had been seeking jobs for less than a month, and 30 percent, from 1 to 2 months. Most of the unemployed, moreover, were eligible for unemployment benefits. The average weekly number of beneficiaries under State unemployment insurance laws increased from less than 200,000 in July 1945, before the Japanese surrender, to 1.6 million in March 1946, the month of highest unemployment. Over the same period the average weekly number of veterans receiving Federal readjustment allowances for unemployment rose from about 38,500 to 1.5 million. Together, these two programs compensated for most of the unemployment experienced during the year. At no time in the Nation's history did so large a proportion of the unemployed have assured means of replacing part of their loss of earnings.

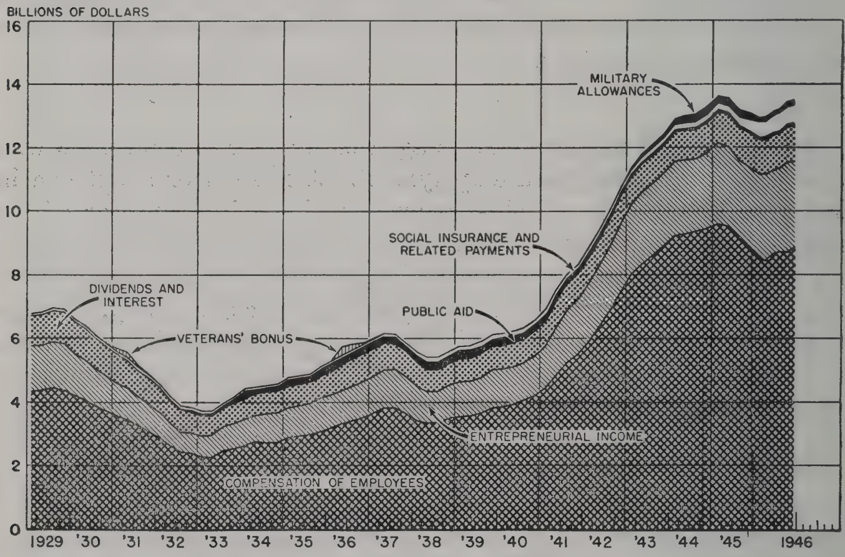
Old Age

Among the 6.8 million persons aged 65 or over in June 1946 who were without income from employment, 1.3 million or about one in five were beneficiaries of old-age and survivors insurance or of the special public retirement systems for railroad and government workers. Though this proportion was higher in 1945–46 than in any previous year, it fell far short of the objectives of social security. Recipients of old-age assistance, which Congress had established in 1935 as a transitional and eventually a residual program only, outnumbered aged insurance beneficiaries, especially among women. A program like old-age and survivors insurance, which pays benefits on the basis of eligibility acquired through earnings over a period of time after the insurance system begins, builds up a beneficiary load gradually. Meanwhile, however, the potential benefit rights that are accumulating will furnish income in old age to many millions of persons now in their active working years.

Many other workers who have contributed to the program, on the other hand, may never become eligible for benefits because their years of covered employment were interrupted by service in the armed forces or other branches of the Federal Government or because of their postwar return to excluded occupations. Wartime shifts from one kind of job to another differed only in magnitude from the mobility characteristic of the American labor force in peacetime; the loss of, or failure to gain, insured status that resulted from these shifts was only an aggravated phase of the continuing problem resulting from limitations of coverage of the social insurance system. Because about two jobs in five are excluded from old-age and survivors insurance, millions of workers may be expected to reach old age without eligibility for benefits or with smaller benefits than they would have had if all their earnings could have been credited. Extension of old-age and survivors insurance coverage to all workers and coordination of special systems for railroad, government, and other employees with this basic Federal system are essentials for adequate protection of the aged.

During the fiscal year, the most rapid increase in beneficiaries of old-age and survivors insurance was in the number of retired workers, reflecting the decline in their job opportunities. Principally because of this rise in number of primary beneficiaries, the total number of aged beneficiaries of old-age and survivors insurance in June 1946 comprised a larger proportion of the total aged population than at the end of any previous fiscal year—9 percent of the estimated 10.4 million persons aged 65 and over. Perhaps another 650,000, or about 6 percent of the aged population, were on the rolls of related public programs that provide benefits on the basis of the individual's record of past employment or military service—the Federal railroad retirement system; Federal, State, and local retirement plans for public employees; and the veterans' program. More than 2 million old people, or about 20 percent of the total, were receiving old-age assist-

CHART 3.—*Income payments to individuals, January 1929–June 1946*[1]



[1] Monthly average for each quarter, 1929–45; monthly data thereafter.
Source: Department of Commerce, Office of Business Economics.

ance. This last group, after declining in number from 1942 through the summer of 1945, began to increase again in the autumn of 1945. The rise during 1945–46 was smaller, however, than the increase in aged persons on the old-age and survivors insurance rolls. From June 1940 to June 1946 the ratio of aged recipients of assistance to aged insurance beneficiaries dropped from 25 to a little more than 2. The decline is significant for the future relationships of the two programs.

About 6.6 million aged persons, or 64 percent of the total, were not benefiting directly from public assistance or retirement programs in June 1946. Some 3.6 million were supported by income from employment, as earners or the wives of earners. The remaining 3 million, including some 2.4 million women, mostly widows, were supported by income from other sources—commercial annuities, industrial pensions, savings, or investments—or were receiving institutional care or private charity or aid from friends or relatives. As the old-age and survivors insurance system matures and as coverage is expanded, dependency among members of the last group, as well as the assistance group, may be expected to decline.

Death of the Breadwinner

In 1945–46, as in earlier years, most widows and fatherless children were outside the scope of old-age and survivors insurance because they had lost husband or father before the program began or before the worker could acquire insured status under the Social Security Act. At the end of the fiscal year, 129,000 widows with children under age 18 were receiving survivor benefits under the program. At the beginning of July 1946, however, half or more of the families with children under age 18 in the United States had potential rights to survivor benefits under the program, since the 43 million workers who had insured status under the system, as of that date, included about two-thirds of the married men in the population with children under age 18. The death of any of these married men with insured status could give rise to survivor benefits for their widows and children. Over the years, when these children are growing up, the amounts payable to a family may total thousands of dollars. Together with any other resources left by the wage earner—such as an equity in the home or payments under a commercial insurance policy, ordinarily in small amounts—benefits frequently are the means of enabling a widow to remain at home while young children require her care and to give them a fair start in life. The value of the survivor protection that families had built up under the Federal old-age and survivors insurance system was the equivalent of more than $50 billion in term life insurance. Some of the protection acquired in recent years may not be maintained unless the coverage of the system is extended.

Survivor benefits under the Social Security Act are not payable to a widow under age 65 unless she has a child or children of the deceased worker in her care; at age 65, a widow of a fully insured worker becomes eligible for an old-age benefit if she has not remarried. Since the widow of a veteran who died of service-connected causes receives a benefit whether or not she has children, the number of younger widows in receipt of veterans' benefits was more than twice the number receiving survivor benefits under the Social Security Act. The widows under age 65 in the United States who were receiving payments under old-age and survivors insurance in June 1946 constituted about 4 percent of all widows in that age group. Another 10 percent had benefits under related public programs, mostly the veterans' program, and about 3 percent were receiving public assistance. A little more than half were working, and about 30 percent were living on savings, commercial insurance, survivor annuities paid by private industry, investments, or other assets, or were being aided by friends or relatives or private philanthropy.

Of all fatherless children under age 18, about 15 percent were receiving child's benefits under old-age and survivors insurance, 7–8 percent were beneficiaries of the veterans' program, and almost 10 percent were receiving aid to dependent children. About 10 percent of all fatherless children were working, and 3 percent were cared for in foster homes or institutions. Perhaps 6 in 10 were living with and being supported by the earnings of the mother or some other relative.

In relation to public assistance, social insurance and related programs now represent a much more important source of support for surviving dependents than for the aged. In June 1946, aged recipients of public assistance were half again as numerous as aged beneficiaries of social insurance and related programs, including the veterans' program. Among children who had lost a father, on the other hand, two were receiving social insurance or related benefits for each one on the assistance rolls, and among widows under age 65 there were five on the rolls of the social insurance and related programs for each one on the assistance rolls. The extent to which social insurance has replaced assistance, or obviated the need for assistance, varies considerably, however, in different parts of the country. In six industrialized high-income States—California, Connecticut, Delaware, New Jersey, Ohio, and Oregon—more children were entitled to survivors insurance benefits at the end of 1945 than were on the rolls for aid to dependent children. In contrast, in seven relatively rural States—Colorado, Louisiana, New Mexico, North Dakota, Oklahoma, South Dakota, and Tennessee—at least three times as many children were receiving assistance as were on the rolls of the Federal insurance system. Because the coverage of old-age and survivors insurance is limited to industrial and commercial jobs, insurance benefits have replaced assistance to a greater extent in industrialized States than in places where agriculture predominates. Conversely, many farm

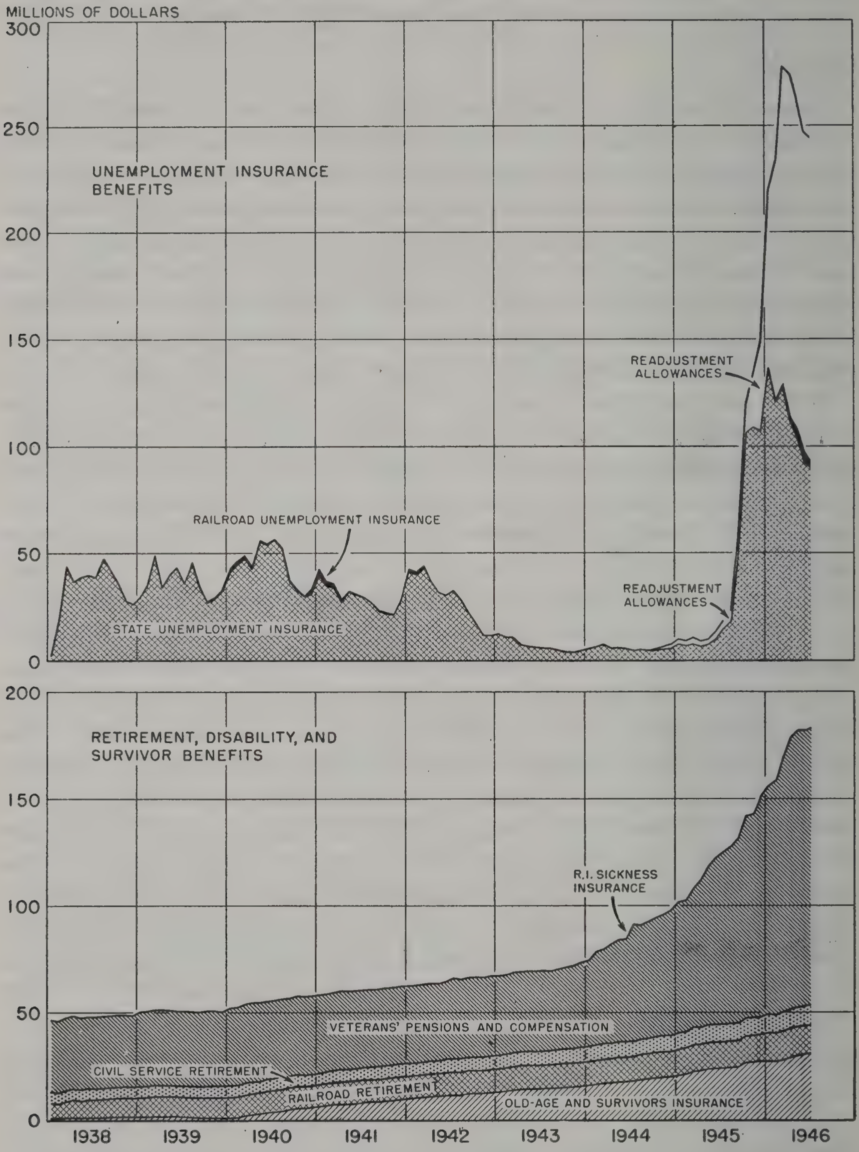
States and communities—where per capita income is usually low and fiscal resources are limited—carry relatively heavier burdens for aid to needy old people and children than do richer areas.

Disability

Social insurance benefits are available to relatively few of the daily average of 2 million or more disabled persons who have recently been in the labor force and, but for their incapacity, would be working or looking for work. Most of the wage loss due to disability is uncompensated. In ordinary years, the wage loss from disabilities lasting less than 6 months and the first 6 months' loss in extended disabilities amount to about $3–4 billion. For the families affected, the consequences in lowered living standards—and in many instances, sheer deprivation—are likely to be felt over a long period of time.

Wage loss due to work-connected injury or illness was the first to be compensated in this country on a social insurance basis. In 1945–46 a monthly average of somewhat more than 30 million workers in industrial and commercial employments were covered by workmen's compensation. Conditions of work-connected origin, however, apparently account for less than 10 percent of the wage loss attributable to disability. Since 1943, Rhode Island, under its temporary disability program, has been compensating wage loss due to any sickness or disabling condition among workers covered by its unemployment insurance program; in California, payments under a recently adopted disability insurance program are scheduled to begin in December 1946. No similar public provision exists in other States. Excepting payments to disabled veterans, the only public provisions for compensating permanent disability resulting from a non-work-connected cause are the somewhat restricted programs for railroad and government employees. Private provision is available in the form of commercial insurance, but most insurance companies have discontinued the issuance of extended disability policies and few workers are able to afford the relatively high cost of temporary disability policies.

In June 1946 about 2 million veterans were receiving disability compensation or pensions, of whom about one-fourth had a disability rating of 80 percent or more. Persons receiving disability pensions or annuities under the railroad retirement program numbered about 40,000, and about 50,000 drew disability benefits under retirement systems for Federal, State, and local government employees; both these totals include some persons aged 65 and over. One effect of the lack of a general disability insurance program has been a relatively large representation of the disabled on the public assistance rolls. Recipients of aid to the blind in June 1946 numbered 74,000. The families of about 65,000–70,000 incapacitated men received aid to dependent children, CHART 4.—*Payments under selected social insurance and related programs, January 1938–June 1946*



and the 278,000 cases receiving general assistance included many adults whose working capacity was seriously impaired by disability. Many others, of course, including disabled persons who had never been able to work or had been out of the labor market for a long time, represented a heavy charge on public funds for institutional care.

Medical Care

In the first full-length Executive message on the subject in American history, President Truman on November 19, 1945, proposed a five-point program for the construction of additional hospitals and related facilities; the expansion of public health and maternal and child health services; governmental aid for medical education and research; the prepayment of medical care costs through a comprehensive health insurance program; and protection against the loss of wages from sickness and disability.

Great strides have been made in the United States in the last few decades in the reduction of sickness and death rates, especially in the earlier years of life. That reduction, however, reflects chiefly improvement in the field of communicable diseases such as typhoid fever, diphtheria, and tuberculosis and is attributable in large measure to the success of public health measures affecting the water supply, sewage disposal, and food handling, and to immunization, case-finding, and other tax-supported community services. Further gains must largely depend on improvement in preventing and treating the so-called degenerative diseases of middle age and old age—for instance, cancer and heart disease, the death rates for which have increased rather than decreased—and on more nearly adequate medical services for persons suffering from other diseases that cannot be prevented or controlled by mass methods. Progress in preventing needless suffering and death and promoting the Nation's general level of health therefore hinges largely on provisions for individual diagnosis and care. Hence the importance of emphasizing methods that would assure to all persons ready access to adequate individualized medical services.

Development of hospitals and community health facilities in places now without them should help to remedy the alarming—and probably increasing—lack of physicians in rural and poverty-stricken areas.[4] Doctors prefer to practice where they can have ready access to hospitals, laboratories, and other essentials of modern and well-paid medical practice. The concentration of physicians in large cities is due in part to the fact that cities possess such resources. A more equitable distribution of health facilities should encourage a better distribution of skills and services.

The last two points in the President's program deal with the cost of medical care to the individual and the loss of earnings when sickness strikes. Reference has been made to the magnitude of the loss of earnings resulting from disability and the very limited extent to which disability benefits now available replace such losses. Equally important is the problem of paying for adequate medical care, which concerns not only wage earners but also the population as a whole. An increase in hospital facilities and in medical personnel is of limited value unless sick people can afford to use them. Cost remains the principal barrier to adequate medical care and is as much a reason for limited services in low-income areas as is the lack of facilities. Few people are able to meet the expense of severe or prolonged illness out of current earnings. For many families such illness means the exhaustion of savings and serious—often overwhelming—debts. Fear of economic disaster frequently keeps families from calling in a doctor at the time when his services could be most effective. Much of the value of early diagnosis and treatment is thus lost.

---

[4] For Federal legislation enacted after June 30, 1946, see pp. 521–522.

In the aggregate, the financial burden of illness is not excessive. The Nation's bill for health services of all kinds, including services by doctors, dentists and nurses, hospitals, and public health agencies, and the cost of medicines and appliances, amounts to about 4 or 5 percent of the national income. The problem lies in the uneven incidence of this burden. In a given year most families have only nominal expenditures for medical care; others are overwhelmed. Except on a prepayment basis, it is, for all practical purposes, impossible for an individual or family to budget for medical care. These two characteristics of medical care cost—their unpredictability for the individual family and their manageable proportions when averaged—provide the basis for the President's recommendation that medical costs be put on a prepayment basis.

Prepayment of medical care costs is not a new principle. In all States but Mississippi, most employers in commerce and industry are required to carry the cost of treatment for work-connected injuries, and most of them do so through insurance. Workmen's compensation, under which about $150 million was spent for medical care in 1945, is the only prepayment plan in the country covering any substantial group of workers on a compulsory basis. The prepayment principle has also been used in a number of voluntary medical care plans. The principal limitations of such voluntary plans have been inadequacy of coverage, restrictions on services, limitations on membership, inability to adjust contributions to income, and relatively high costs.

In June 1946, about 21.7 million persons, or 15.7 percent of the civilian population, were members of Blue Cross plans, which provide for prepayment of hospitalization costs. About 6 million persons were subscribers to voluntary prepayment plans under medical society, private group clinic, consumer, employer, and Government auspices. About one-third of them, primarily Blue Cross members, were eligible only for surgical care in a hospital; the others were entitled to relatively complete service. Another 8 or 9 million persons, including dependents, were covered for all or part of their hospitalization costs through group policies issued by commercial insurance companies; group policies to indemnify surgical costs also were in force for about 6 million of these persons and their dependents. Several million individuals—the exact number is not known—held personal health or accident policies issued by commercial insurance companies.

Federal, State, and local governments have assumed some responsibility for the care of certain groups in the population. The Federal Government provides medical care of varying degrees of completeness for members of the armed forces, merchant seamen, and some veterans. The Federal Government also furnishes treatment for work-connected disabilities sustained by its employees, pays for maternity and infant care services received by wives and children of enlisted men in the armed forces, and maintains institutions for persons afflicted with leprosy. Institutional care of persons suffering from tuberculosis and from mental disease or deficiency is generally a State responsibility. Local units of government provide most of the hospital care given persons with communicable diseases. State and local governments share in varying proportions the cost of medical care to the needy sick. All three levels of government contribute toward programs for maternal and child health and services for crippled children.

In the fiscal year 1944–45, expenditures to carry out governmental health and medical functions amounted to more than $1 billion, excluding care of members of the armed forces but including care of veterans and public health services. Tax funds, in other words, provided about 1 dollar in 5 of the Nation's total health bill. Of the governmental dollar, about 32 cents came from the Federal Treasury and about 68 cents from State and local resources.

There is general agreement on the desirability of a larger governmental contribution to the cost of keeping the Nation in good health; the only major differences of opinion are on the most appropriate way of making it. Some suggest that it should take the form of more free care to needy persons and to persons of low income. Although, by and large, the medical care of needy persons is undoubtedly insufficient and more ample provision should be made for that purpose, free care on a means-test basis is not the solution to the problem faced by the great majority of normally self-supporting persons. Such persons can and would prefer to pay for their medical care through some system of prepayment that distributes medical costs over groups of people and periods of time, rather than seek free care after they have been reduced to dependency. Experience both here and abroad indicates the effectiveness of achieving this objective through a health insurance program under governmental auspices, financed out of periodic contributions by employers and employees. Extension of governmental responsibility for the Nation's medical services, the Board believes, can best be effected through a program of this type.

Such a program, it should be understood clearly, does not represent "socialized medicine" but is a method of insurance payment. Through it, families that are ordinarily self-supporting make small regular contributions to a fund from which payments are made to doctors, hospitals, and others for care rendered to them as insured patients. Persons dependent on public funds can be covered through payment to the insurance system of contributions on their behalf, and thus can receive medical care just as others in the community receive it, without the stigma and inadequacy often associated with "poor-law medicine."

With assurance that their bills for needed services will be paid from the fund to which they have contributed, insured persons can be free to seek medical advice at an early stage in illness, when the chances for prevention and cure are greatest. Patients can and should be free to choose their doctor from all who elect to participate in the system and to change doctors if they wish; doctors should also be free to reject patients. Individual doctors and groups of doctors should be free to choose the method by which payments will be made to them from the insurance fund. There need and should be no fear of "regimentation" of patients, practitioners, or hospitals. On the contrary, just as the removal of the cost barrier would enable the insured person to seek the care he needs, so it would free doctors and hospitals to employ the scientific techniques and devices best suited to treatment of the individual without fear that the cost will be more than he can pay. The system thus would give room and incentive for improving standards of service, and would encourage research and education to extend the knowledge and use of better methods of preventing and caring for sickness and disability. Both practitioners and institutions would have far greater assurance than at present of steady and adequate income. That assurance would make for better distribution of medical personnel as well as greater and better use of existing resources.

The Board believes that the simplest, most economical, and most effective basis for medical care insurance would be through Federal legislation to establish comprehensive protection. Such a law might authorize use of State and local official agencies—and, when they contribute to administrative efficiency and economy, of private agencies—in administration of the program and use of public and private agencies, facilities, organizations, groups, and individuals in furnishing services to insured persons. In any event, subject to national standards, administration of benefits should be decentralized under arrangements worked out locally with doctors, hospitals, and others concerned. The general pattern of arrangements with doctors and hospitals should be designed with the collaboration of professional organizations, with careful regard for circumstances in a region, State, or locality, and with wide latitude for the participation of existing organizations and use of all other resources for medical and health services. Policies and operations in each area of administration—Federal, State, and local—should be guided by advisory bodies representing the contributors to the system and the groups that furnish services. A system of medical care insurance need not, and in the opinion of the Board should not, supplant many existing group arrangements for medical care for persons who may wish to use the services they offer.

OLD-AGE AND SURVIVORS INSURANCE

The course of the Federal system of old-age and survivors insurance in 1945–46 was marked both by the continuing development to be anticipated in the early years of a long-term insurance program and by special factors introduced or accentuated by wartime conditions. Increase in the proportion of the population who were currently or fully insured resulted from longer operation of the system and wartime levels of covered employment; the increase, however, was offset in part by loss of insured status by formerly insured workers who had entered the armed forces, Federal civilian service, or other noncovered pursuits or had left the labor force. With the end of active warfare, claims for survivor benefits, which had included many resulting from war deaths, ceased to increase more rapidly than claims for retirement benefits. As war production was cut back and older workers found it harder to keep or get jobs, the number of claims from aged workers and their wives rose sharply. The system is providing an assured basic income in hundreds of thousands of homes and is protecting millions of others against eventual risks of want in old age or at the death of the breadwinner, but it still fails to protect many thousands of the households of the Nation.

Old-Age and Survivors Insurance in 1945–46

Workers and Their Wage Credits

An estimated 3.6 million persons received their first wage credits under the program in the calendar year 1945, the last 12-month period for which wage tabulations are now available. These new entrants brought to 76.5 million the number of workers who, by the end of that year, had received wage credits at some time since the program was inaugurated in 1937. Of these workers, an estimated 73.2 million were living at the end of 1945; they included almost 2.5 million aged 65 and over.

The year 1945 was the second successive year in which a decline occurred in the number of persons who worked in covered employment at some time during its course. From a peak of 47.7 million in 1943, the number of workers receiving wage credits decreased to an estimated 45.7 million in 1945. The number who entered covered employment for the first time was about 4 million smaller in 1945 than in 1943.

Taxable wages, from a peak of $64.4 billion in 1944, dropped slightly to $62.5 billion in 1945. With the decline in war production, the average per worker fell from $1,392 in 1944 to $1,367 in 1945.

Insurance Status

At the beginning of 1946, an estimated 41.5 million living workers were insured under old-age and survivors insurance; 33.8 million were fully insured and 7.7 million were currently insured only. The total number insured was substantially above the preceding year's total of 38.4 million workers. Because of the concurrent rise in the total number of living workers with wage credits, however, the proportion of such workers who were insured rose only slightly, from 54.6 percent on January 1, 1945, to 56.7 percent on January 1, 1946.

In the vast majority of cases, uninsured workers with wage credits had had only brief covered employment because of recent entrance into or early withdrawal from covered jobs, shifts between covered and noncovered employment, or, particularly among women, shifts in and out of the labor force. At the beginning of 1945, 19 percent of all uninsured workers had worked in covered employment in only 1 calendar quarter, and 68 percent, in fewer than 6 quarters. The estimated 31.8 million living workers who were fully insured on January 1, 1945, had received cumulative wage credits averaging $8,930 per worker, while the 6.6 million workers currently insured only had an average of $3,710, and the 31.8 million uninsured workers only $657 per worker.

Applicants for Account Numbers

The cumulative total of account numbers issued rose from 54.2 million at the end of 1940 to 83.8 million at the end of 1945. At the end of 1945, it is estimated, account numbers were held by 75.3 million living persons aged 14 and over, 25.4 million more than at the end of 1940. From a total of 7.6 million applications in 1942, the number declined to 4.5 million in 1944 and to 3.3 million in 1945, in part because of the continued decrease in the proportion of the population without account numbers.

Beneficiaries and Their Benefits

In January 1946, the cumulative amount of benefits certified under this program since January 1, 1937, passed the billion dollar mark. By June 30, 1946, the total amounted to $1,160 million, of which all but $29 million represented monthly benefits and lump sums certified since January 1, 1940, under the Social Security Act Amendments of 1939.

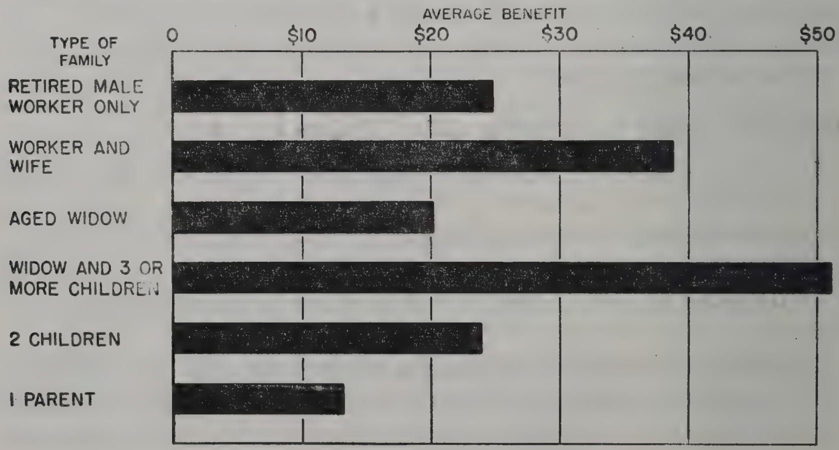
The $337 million certified during the fiscal year 1945–46 represented the largest amount certified in any 12-month period and the largest increase for any such period; $164 million was for monthly benefits for retired workers, $29 million for monthly benefits for their aged wives or young children, and $118 million for monthly benefits to survivors of deceased workers; $26 million consisted of lump-sum payments with respect to deceased workers whose survivors could not qualify for monthly benefits in the month of the worker's death.

Of the 1.5 million persons actually receiving monthly benefits on June 30, 1946, 42.1 percent were retired aged workers, 12.9 percent were wives of these workers, 7.3 percent were aged widows of deceased workers, 28.7 percent were children of retired or deceased workers, 8.6 percent were widows who were caring for child beneficiaries, and 0.4 percent were aged parents of deceased workers who had left no widow or child.

In contrast to the war years, in the fiscal year 1945–46 the greatest relative increases in beneficiaries occurred among retired workers and their wives; 256,000 workers aged 65 and over entered the benefit rolls, in contrast to the 133,000 in the preceding 12 months. Nevertheless, it is estimated, about 800,000 fully insured workers aged 65 and over on June 30, 1946, had not filed claims for benefits, presumably because they were still employed. About 100,000 additional aged workers, though on the benefit rolls, were not receiving benefit payments, usually because they had earnings in covered employment.

Of the 1.1 million beneficiary families on the rolls on June 30, 1946, nearly one-half were those in which the worker himself was the sole beneficiary. The next largest group of families consisted of a retired man and his aged wife, both of whom were entitled to monthly benefits, which averaged $38.90 per family (chart 5). In the third largest group, an aged widow was the sole beneficiary, while families including a widow and one child beneficiary were next in frequency. The av-

CHART 5.—*Average monthly amount of benefits in force for specified family groups on the old-age and survivors insurance rolls, June 30, 1946*



erage family benefit for all groups on the rolls was $29.40 a month, ranging from $51 for a widow with three or more child beneficiaries to $12.60 for a child alone.

Appeals

A claimant who is dissatisfied with the Board's determination of his eligibility for benefits or his benefit amount may request a hearing before a referee. A similar request may be made by any person whose benefit has been suspended—because of earnings in covered employment or for some other reason—or by any worker who questions the correctness of the Board's determination of the wage credits on which his or his survivors' future benefits will be based.

During the fiscal year, 1,199 requests for hearings were filed, while 292 appeals were carried over from the preceding year. Hearings were completed in 1,236 appealed cases during the year and decisions rendered on 1,145, including cases heard previously. Approximately 30 percent of these decisions modified, in the claimants' favor, the original determinations of the Board. At the close of the fiscal year, 15 civil actions concerning old-age and survivors insurance claims were pending in the courts; of 13 such cases decided during the year, 9 upheld the Board's position. Of the 31 court decisions that have been rendered since enactment of the 1939 amendments, 23 upheld the Board's action.

Administrative Developments

During the fiscal year, the Board adopted several procedures designed to improve administration and made rulings which simplify benefit operations. A comprehensive interpretation of the term "missing in action," as applied to workers with wage credits who died in military service, facilitated the payment of a substantial number of claims by survivors for lump-sum death payments for which applications were filed more than 2 years after the date on which death was found to have occurred.[1] Payment of lump sums was made possible in similar situations, on receipt of information from the War Department that persons serving with the Army in the Philippines after May 7, 1942, were officially declared "missing," whether or not a "missing" notice was ever issued. A procedure was adopted to permit a lump-sum death payment to the heirs of an estate which is equitably entitled even though no legal representative has been appointed for the estate.

Anticipating a substantial reduction in the earnings of elderly wage earners as labor shortages eased, the Board formulated a plan for establishing an individual's benefit rate at the most favorable wage level.[2] Although the worker's claim will not be adjudicated until he stops work, this procedure protects him against a reduction in benefit amount if his earnings decrease and forms a basis for making payments for any month in which he does not earn more than $14.99 in a covered job.

---

[1] For Federal legislation enacted after June 30, 1946, see pp. 519–520.

Among other developments in the year, the Railroad Retirement Board, the Bureau of Internal Revenue, and the Social Security Board agreed to issue simultaneous rulings on a large number of stockyard employers on whom no tax or benefit rulings had been released and whose operations apparently are covered partly under the Social Security Act and partly under the Railroad Retirement Act. The Bureau of Internal Revenue will first make tentative findings, to be reviewed by the other two agencies. For the first time, the Board exercised its power of subpena to obtain wage information from employers in adjudicating claims and wage discrepancies. Following Supreme Court action, the Board held that back pay can be credited as wages when awarded in accordance with any Federal or State law intended to protect an individual's right to wages.

Administrative Costs

Despite continuing shortages of personnel during the fiscal year, the Board's Bureau of Old-Age and Survivors Insurance performed the largest job in its history. The number of benefits awarded exceeded the preceding fiscal year's record high by about 25 percent. The number of beneficiaries continued to grow, and their payments totaled one-third more than in the preceding year. The number of required changes in the benefit rolls—suspensions, reinstatements, changes of address, and so on—also reached an all-time high. The volume of work in establishing and maintaining accounts of employee earnings, on the other hand, was slightly below that of a year earlier. Experience continued to demonstrate the effectiveness and economy of the Nation-wide centralization of wage records, combined with localized services provided through the field organization to workers, employers, and the public.

The total administrative cost attributable to the old-age and survivors insurance system during the fiscal year 1945–46 equaled 3 percent of the contributions received during the year, while it represented 11.6 percent of benefit expenditures. This total includes costs incurred by the Treasury in collecting contributions under the Federal Insurance Contributions Act, managing the trust fund, and issuing benefit checks, as well as all administrative costs of the Bureau of Old-Age and Survivors Insurance and the Appeals Council and all other costs of the Social Security Board and Federal Security Agency directly attributable to the program.

---

[2] For Federal legislation enacted after June 30, 1946, see p. 519.

The Bureau's administrative costs have declined from 2.6 percent of contributions collected in the fiscal year 1940–41 to 2 percent in 1945–46. These costs included expenses of the central offices of the Bureau in Baltimore, the greater part of which represents the costs of maintaining centralized wage records of the 83.8 million accounts established for persons who were or expected to be in covered jobs, in addition to the administrative costs of 6 area offices, 449 field offices, 7 branch offices, and 1,707 itinerant stations.

During the fiscal year, 171 million wage items, each representing an employer's wage payments to a worker during a calendar quarter, were credited to workers' social security accounts. These items were reported on 8.5 million tax returns from about 2.6 million employers.

Financing the Program

Old-age and survivors insurance is financed by employer and employee contributions based on the first $3,000 of the employee's annual wages in covered employment. The original Social Security Act provided for employer and employee contribution rates of 1 percent each with respect to wages in the calendar years 1937–39 only, and 1½ percent each in 1940–42, 2 percent in 1943–45, 2½ percent in 1946–48, and 3 percent in and after 1949. In 1939, however, Congress continued the 1-percent rates for the years 1940–42 and subsequently for 1943, 1944, and 1945. In November 1945, Congress acted again (Public Law 214, 79th Cong.) to hold contribution rates at 1 percent each for the calendar year 1946, thus extending to 10 years the period for which the original rates have applied.[3]

Amounts equivalent to the employer and employee contributions collected under the Federal Insurance Contributions Act are appropriated to the Federal old-age and survivors insurance trust fund. This fund consists of the accumulated appropriations plus interest on its holdings, less expenditures for benefits and the costs of administering the system. Assets are invested in Government securities, except for relatively small amounts set aside to meet current withdrawals. Of the total assets of $7.6 billion on June 30, 1946, all but $93 million was so invested, at an average rate of interest of 2.05 percent.

During the fiscal year, assets in the trust fund increased from $6,613 million to $7,641 million. Income totaled $1,386 million, of which $1,238 million represented appropriation of contributions under the Federal Insurance Contributions Act, and nearly $148 million, interest on investments. Disbursements amounted to $358 million, of which about $321 million was for payments to beneficiaries, and $37 million for administrative expenses.

---

[3] For Federal legislation enacted after June 30, 1946, see p. 517.

Assets of the trust fund have increased rapidly because benefit payments, the major charge on the fund, are still considerably below contribution income, even though contribution rates have remained at 1 percent. On the other hand, benefit expenditures have been increasing rapidly and continuously, especially since Japan's surrender. This increase will continue for many years while the number of new beneficiaries added to the rolls considerably exceeds the number whose benefits terminate because of death or other causes. Unless contribution rates are increased, annual disbursements may be expected to overtake the annual amount of contributions within a comparatively few years.

Under existing provisions, the old-age and survivors insurance system will probably not mature until at least the end of this century, when the number of beneficiaries may be from 8 to 15 times the number today. In the interval, the population aged 65 and over will continue to increase, both in absolute numbers and in relation to the total population. Of even greater significance, the proportion of the aged population eligible for retirement benefits will continue to rise substantially. Now only a small percentage of the aged are insured, since most old people who worked in employment now covered left it before the system began in 1937 or too soon thereafter to become insured. In survivor insurance also, the system is now immature, since benefits are available only to the survivors of insured workers who died in or after 1940.

The report issued in January 1946 by the technical staff appointed by the House Ways and Means Committee to conduct its study of the Social Security Act proposed, as its "concluding suggestion" on financing, that the contribution rates of employer and employee each increase by one-half of 1 percent every 10 years beginning with 1947 until a 3-percent rate is reached in 1977. The technical staff noted that such a schedule of contribution rates might eventually prove insufficient to meet the total benefit costs of the program and proposed that whatever schedule was to be adopted "should contemplate support from general revenues when benefits for a particular year exceed the taxes and interest on reserve for that year . . ."

Civilian War Benefits

Responsibility was delegated to the Board for activities under the civilian war benefits program, which, beginning in February 1942, provided cash benefits for civilians suffering injury or death from enemy action. This program also served as the "workmen's compensation" program of federally supported civilian defense organizations. The Board discontinued, as of June 30, 1945, accepting new claims for compensation arising out of the performance of official civilian defense duty. New claims arising out of enemy action—chiefly cases of repatriated civilians liberated from the Japanese prison camps in the Philippine Islands—continued to be accepted. The Board has recommended that the benefit rolls of disabled civilians and dependents of civilians who were killed should be maintained on a statutory basis. Since these rolls are limited to a comparatively small number, the Board believes they could be most efficiently integrated not with old-age and survivors insurance but with the regular Federal employees' compensation program.[4]

Benefits paid in the fiscal year totaled $134,500, of which $18,300 was for permanent disability, $40,700 for temporary total disability, $74,900 for death benefits, and $500 for burial expenses. The Board's administrative expenses for the program were $7,800.

Improving Old-Age and Survivors Insurance

Three major factors keep old-age and survivors insurance from realizing its objectives fully. First is the limitation of coverage. At the beginning of January 1946, about 45 percent of all civilian jobs were excluded from coverage under the program. Extension of coverage not only would provide protection for many workers now wholly outside the system but also would increase the protection for others who move into and out of covered employment and for their dependents.

The second area in which improvement is necessary concerns eligibility for benefits and benefit amounts. The general level of benefits should be raised to accord with higher wage rates and living costs. If coverage is extended, modifications should be made so that newly covered workers will not suffer either undue delay in establishing rights to benefits or reduction in the amount of benefits for which they may qualify. The conditions governing benefit payments should be amended to eliminate anomalous and inequitable situations and to simplify administration.

Absence of protection against the economic effects of disability is the third major shortcoming of the program. Prolonged disability cuts off the worker's earnings and creates the need for partial replacement of those earnings; it also may cause him to lose his insured status while he is disabled or reduce the amount of benefits for which he or his survivors may eventually qualify, despite his previous contributions for these purposes.

---

[4] Congress, in a specific appropriation to the Federal Security Agency, authorized continuance of the program through June 30, 1947; allotments from the President's Emergency Fund ceased on June 30, 1946.

Extension of Coverage

Because of coverage limitations, many contributors to the system will be ineligible for old-age retirement benefits, and their survivors will fail to qualify for benefits when the family breadwinner dies. Many more who acquire and retain insured status will have benefits based on lower average wages than they actually received during their working lifetimes. Of the estimated 73.2 million persons with wage credits at the beginning of 1946, 31.7 million—or more than 2 in 5—were neither fully nor currently insured. While many factors contribute to this condition, the most significant is the shift of large numbers of workers into and out of covered employment.

Self-employment.—Self-employment was excluded from old-age insurance under the 1935 provisions of the Social Security Act largely because of the need for developing administrative experience in the less difficult field of wage employment, in which both wage reports and contributions could be collected through employers. Experience gained over more than a decade in operation of the insurance system has demonstrated that it is possible to solve the administrative problems that may arise. In recent years, business records that supply adequate information for income-tax purposes have become much more common than in 1935. Persons with annual gross incomes of as little as $500 have been required to file income-tax returns. Pay-roll reporting has been carried on successfully even by small firms with only a worker or two.

The 1940 census enumerated about 10 million self-employed persons during the census week of that year. This figure excludes more than a million gainfully employed persons who are not self-employed in the full meaning of "independent businessmen," yet have been held by most courts not to be "employees" within the present definition of "employment" under the Social Security Act.

The term "self-employed" is likely to suggest well-to-do business and professional people who can themselves provide against old age or premature death. Actually there is a wide range in the income of self-employed persons, and most small businessmen and many professional persons have incomes comparable to those of wage and salary earners. Although farmers have had relatively high incomes in recent years, a large number have less than $1,500 a year to live on, including their income in kind.

Another common belief is that self-employed persons have income from their ownership of a "going concern" and that such investment income will continue even after the individual stops working because of age or death. Self-employment, however, is a status which few maintain throughout their working lifetimes. Business mortality and mortgage foreclosure, moreover, are likely to occur late in the self-employed person's life.

Of several feasible methods for obtaining earnings reports and contributions from self-employed persons, one is the addition of the owner's name and an assumed salary, equal to that of his highest-paid employee, to the pay-roll reports now filed by unincorporated employers and another is the independent reporting of gross income less a standard deduction. The latter method, however, would not give entirely accurate results, while the former would be effective for only about one-third of all unincorporated businessmen. The technique of integrating social security reports with income-tax reports offers the best possibility of an equitable plan. Proposals have sometimes been made to permit the self-employed to obtain coverage by making voluntary contributions. Voluntary coverage has been used in some foreign systems, but experience has demonstrated that persons most in need of protection do not participate. This country would undoubtedly have the same experience, and benefits paid to persons who participate would constitute an excessive financial drain on the system.

Employer-employee relationship.—Whether or not the coverage of old-age and survivors insurance is extended to self-employment, it is desirable that the Social Security Act and Federal Insurance Contributions Act include a broad statutory definition of the term "employee." It is important that contributors and administrative agencies know as precisely as possible what services and what wage payments are subject to contributions.

It would be desirable that the word "employee" be defined by statute so as to include all service relationships that fall short of being independent businesses. A statutory definition, amplified by suitable regulations, should provide a greater measure of certainty than even the most liberal judicial interpretation—as great a measure as can be attained in dealing with relationships so diverse as those under which one person performs service for another. If self-employment is covered, such a statutory test of the employment relation would afford a dividing line between the two modes of coverage that would be realistic and would be understandable by the man in the street. If self-employment continues to be excluded, it would limit the exclusion to persons who, in a substantial sense, are in business for themselves.

Agricultural employment.—When the Social Security Act was passed in 1935, the jobs of approximately 4.5 million farm workers, not including unpaid family workers, were excluded. The 1939 amendments broadened the definition of "agriculture" and thereby excluded the employment of about 700,000 quasi-industrial workers engaged in cotton ginning, fruit and vegetable packing, operation of irrigation ditches, nurseries, greenhouses, fur farms, and hatcheries, and in nonagricultural work on farms.

The earnings of agricultural workers are among the lowest of any major occupational group in the country. Department of Agriculture surveys indicate that the average total annual cash family income, from all sources, of agricultural workers in 1940 ranged from $200 to $500, or slightly less than $100 per person. Even when account is taken of compensation in the form of food and shelter and of the lower cost of rural living, their earnings are too small to make it possible for the worker to achieve security for himself and his family through his individual efforts and savings.

In normal times, many agricultural workers have nonfarm jobs to supplement their low incomes. During the war, many left the farm to work in war plants, where they contributed to old-age and survivors insurance. Many of them will never derive benefits from these contributions because they will not have worked long enough in covered employment to meet the eligibility requirements. Even those who become eligible will have benefit amounts based on only part of their earnings. Today public assistance is the only recourse of the destitute agricultural wage worker. In the poorer agricultural States and counties, lack of funds prevents many needy persons from receiving assistance commensurate with their needs. In addition, some migratory farm workers are unable to meet residence requirements under State assistance programs.

Until recent years, probably most farmer-employers were indifferent to extension of coverage to agricultural employees. They held that old-age and survivors insurance was appropriate only for industrial or commercial employment. Since the beginning of the war, a change in attitude has been manifested. Several farmers' organizations have favorably considered proposals to extend coverage to both farm laborers and farm operators.

Failure to cover agricultural workers in 1935 and 1939 was largely due to the administrative problems created by many of the characteristics of their employment. Foremost was the problem of obtaining accurate wage reports, since most small farmers did not keep pay-roll records. A second problem was to secure compliance with contribution and reporting provisions, which would involve obtaining small contributions from a relatively large number of employers. With the experience gained in the administration of the present program, several methods for solving these problems have been developed. Among them is a stamp plan, such as has long been used in foreign countries.

Household employment.—Household workers are almost completely unprotected by the social legislation available to workers in commerce and industry. Yet they are even less able to provide themselves with protection against the risks they share in common with all other gainfully employed persons.

The 1940 census enumerated about 2.3 million persons engaged in domestic service in private homes. In addition, approximately 250,000 experienced household workers were unemployed. The exclusion of domestic service affects principally women, who hold about 90 percent of the jobs in this field, and Negroes, who constitute almost half of all domestic workers. In 1940, domestic service was the largest occupational field for women. Between 1940 and March 1944, the number of women in household employment declined by more than 400,000, as women flocked into war plants and commercial and industrial jobs that otherwise would have been held by men.

Laying aside sufficient funds from their current income for their old age or for dependent survivors is even more difficult for them than it is for most workers now covered. The good wages paid some household workers during the war stand in vivid contrast to the low earnings that have characterized household employment. These relatively high wartime earnings will probably recede as the unusual conditions created by the war disappear. According to a report of the Women's Bureau, almost half the 2 million women employed in household work in 1941 had left such employment by March 1944. Some half million other women entered household employment during that period, largely from home housework, schools, and farms.

The extension of coverage to household workers would help to remove the disadvantage they suffer as compared with other useful members of the labor force who, in addition to old-age and survivors insurance, have the protection of workmen's compensation and minimum wage and hour laws, as well as the right of collective bargaining. The fact that the overwhelming majority of household employees are women, some of whom may have social insurance protection through their husbands' wage records, does not remove their need for old-age and survivors insurance. Women household workers—a relatively large number of whom are widowed, divorced, or separated—are even more dependent on their own earnings than are women workers in general.

The original exclusion of household employment was based on the anticipation of administrative difficulties, largely similar to those predicted for agricultural employment. Like the small-farm operator, the ordinary housewife is not likely to keep records of her expenditures for wages. The plans developed for collecting contributions from agricultural workers would be equally applicable to the coverage of household workers.

Employment by nonprofit organizations.—A principal reason for excluding employment for religious, charitable, scientific, literary, educational, or other nonprofit organizations was the opposition registered by a few employing organizations, which feared that the levy of an employer's tax on nonprofit institutions would tend to weaken their traditionally tax-exempt status. In addition, religious groups opposed any appearance of governmental control that might be thought to depart from the traditional principle of separation of church and state.

Such opposition has largely been replaced by a growing conviction that social insurance is necessary and desirable for most employees of nonprofit organizations. Relatively few employees of nonprofit institutions have systematic provision for retirement, and many have no survivorship protection. Furthermore, individuals transferring from one nonprofit employment to another or between nonprofit and other jobs may find themselves without retirement rights under any system. In large part, the occupations of workers in nonprofit organizations do not differ in kind from those of workers now covered by old-age and survivors insurance; their need for effective insurance protection is no less.

No serious administrative problems may be expected in extending coverage to employees of nonprofit organizations, who now include some 1.0–1.3 million persons. Existing retirement systems in this field could be adjusted to supplement the benefits of the social security system. In extending coverage, the special characteristics of the group should not be overlooked. If, for example, members of religious orders and clergymen do not desire social insurance protection, their present exclusion might be continued. Provision might also be made for payment of all contributions directly into the Federal trust fund to reassure religious groups that church and state are being kept separate.

Employment by State and local governments.—Partly because of an erroneous belief that few State and local governmental employees were not covered by existing retirement systems, service performed in the employ of a State, or its political subdivisions, or a wholly owned instrumentality of either was excluded from old-age and survivors insurance. Actually a large proportion of these employees have no such protection. It is estimated that at the beginning of 1945 approximately 55 percent of the total were covered by retirement systems—about 72 percent of the public-education employees and 44 percent of the nonschool employees. Other reasons for excluding such employment were the belief that the pay-roll tax imposed on States and localities in their capacities as employers would be unconstitutional (except perhaps in certain areas of employment), and the fear of some employee groups that coverage under the Federal system would impair accumulated pension rights.

Since the passage of the Social Security Act, however, several groups of State and local employees have favored coverage for themselves, and many State and local legislative bodies have passed resolutions or bills urging such coverage. In general, it appears that individuals and organizations now lacking retirement protection favor coverage under old-age and survivors insurance, while many of those who already have such protection would not oppose coordination with the Federal program if they were assured that rights under existing retirement systems would not be jeopardized. Such assurance can and should be given.

Since extension of old-age and survivors insurance to employees of State and local governments involves the question of constitutionality of a tax levy on the States and localities, a dual approach might be adopted. First, compulsory coverage might be extended to employees performing services in connection with specified "proprietary" functions of State and local governments; decisions of the Supreme Court indicate that the Federal Government may levy taxes on some activities of States and localities, and certain activities clearly within this rule might be selected for compulsory coverage. The second approach might provide for voluntary election of coverage by States, under which any local governmental unit in the State would be permitted to participate. Under this plan, which would avoid the basic constitutional issue, the Social Security Board would be empowered to enter into agreements with State governments under which the State and its local governmental units would assume the status of employers under old-age and survivors insurance. To protect the finances of the social insurance system and to afford basic protection to workers who move in and out of covered employment, coverage of members of electing units should be as widespread as possible.

Federal civilian employment.—In general, employment by the Federal Government likewise has been excluded from coverage of old-age and survivors insurance. Before World War II, less than a million civilians in the continental United States were employed in the executive branch of the Federal Government; by the summer of 1945 the number rose to a peak of 2.9 million, of whom roughly 2 million had been appointed only for the duration of the war.

An earlier impression that Federal employees were adequately protected by existing retirement systems has been considerably modified by an awareness of the extent of mobility between Federal and other employment and by realization of the value of survivor insurance under the Social Security Act and the possibilities of adjusting special benefit systems to provide benefits supplementary to those of the basic system. Some Federal workers with permanent appointments leave Government service to enter private employment. Others enter Government service after covered employment and may fail to obtain insured status under the social security system while gaining only limited retirement and disability rights under the civil-service system. Temporary, part-time, and piecework employees of the Federal Government are excluded from the civil-service retirement system; so also are some Federal workers in the employ of Federal instrumentalities. Even the Federal employees covered by existing retirement systems lack adequate survivorship protection, for the lump-sum refunds to survivors are not an adequate substitute for the monthly benefits for those who qualify under old-age and survivors insurance.

If Federal civilian employees were covered by the basic social insurance system, they would have a groundwork of protection, with continuity of protection for persons who transfer between Federal and other employment. The civil-service retirement system and other staff plans could and should continue; they should provide supplementary retirement income, with their own funds and separate administration to preserve the existing rights of their members. If such extension of coverage is not considered feasible, all employees of Federal instrumentalities and all temporary, part-time, and piecework employees might be covered by old-age and survivors insurance, and some suitable plan might be adopted to compensate for the loss or reduction of rights to old-age and survivors insurance among temporary wartime employees in Federal civilian employment.

Military service.—When the social security program was adopted, insurance coverage was not extended to the Regular Establishment because it appeared that service retirement systems afforded ample protection to persons in the armed forces of the United States. Such systems, however, were never intended to deal with the situation which arose when the armed forces of the United States expanded from about 320,000 men in 1939 to about 12 million. Many persons who entered military service from covered employment during the war lost their insured status by the time of discharge or found themselves with less extended protection than when they entered. For nearly all, the potential amounts of benefits to which they or their survivors may ultimately be entitled were reduced.

To correct this inequity, several plans have been proposed to credit wages for his military service to the serviceman's account. A more restricted plan is that embodied in the proposal that, for a limited time after discharge, veterans would be deemed to be insured and to have an average monthly wage of at least a given amount on which rights to survivor benefits would be based; and that benefits payable solely by reason of such guaranteed insurance status and average monthly wage would be withheld if compensation or pensions were payable to the survivors under veterans' legislation.[5]

Extension of old-age and survivors insurance coverage to military service on a permanent basis would provide adequate protection for all servicemen and continuity of protection and increased benefits for those who shift between military service and other employment. As a step in the direction of coordinating Federal benefit systems, it would help to close gaps in protection and to eliminate payment of overlapping benefits.

Railroad employment.—Railroad employment included approximately 1.7 million persons during 1940 and some 3 million at the height of wartime traffic in 1944. Railroad workers are covered by a special system under the Federal Railroad Retirement Act, which gives old-age and disability protection to long-term employees. Employer and employee contribution rates were set higher than for old-age and survivors insurance, and benefits were also higher, to give railroad workers amounts approximating those promised under preexisting railroad pension plans.

The existence of these two Federal systems gives rise to frequent problems of coverage, with attendant administrative difficulties. Divided coverage also affects the benefit rights of workers who shift between railroad employment and employment covered by old-age and survivors insurance and who thereby lose continuity of basic protection. Coverage of railroad employment under the basic social insurance system would prevent any loss of rights by persons who have worked in both railroad employment and employment covered by old-age and survivors insurance. Were coverage thus extended, the railroad retirement system could be revised so that railroad workers would receive enough in benefits under that system to bring the combined amount of railroad retirement and old-age and survivors insurance benefits to at least the amount which would otherwise be paid under the railroad retirement system alone.[6]

Cash Benefits for Permanent Disability

Like old age or death, protracted physical or mental incapacity to work often spells the final cessation of income for the wage earner and his family. The seriousness of that loss and the fact that the incidence of disability is individually unpredictable, and that losses therefore cannot be budgeted individually, make social insurance against wage loss from disability highly desirable. The fact that the incidence of prolonged disability is predictable in the aggregate—although not individually—makes prolonged disability an eminently insurable risk.

---

[5] For Federal legislation enacted after June 30, 1946, see pp. 517 and 518.

[6] For Federal legislation enacted after June 30, 1946, see pp. 520 and 521.

Among persons who but for their disability would have been in the labor force, perhaps as many as 1.6 million have been incapacitated for 6 months or more. Evidence from American and foreign experience also shows that disabilities which have lasted 6 months are likely to be prolonged. Extended disability, moreover, is likely to be more prevalent and to attack more frequently in families of low income than in families of higher income. The wage loss suffered by permanently disabled workers and their families probably runs from $1.5 billion to $2 billion a year.

In this country, more or less limited protection against permanent disability is available for special groups only. Voluntary nonprofit disability insurance plans and private insurance protect only relatively small numbers against the risk of protracted disability. A general social insurance system of cash benefits during extended disability would provide compensation for a loss of earning power which is, presumably, final.

The central decision in setting up disability insurance concerns the type and extent of disability to be compensated. The best concept under a general system of social security is that which considers disability as the incapacity to work in any employment that the individual can reasonably be expected to have offered or to accept—a concept that is nearly uniformly accepted in foreign systems. Partial or fractional disability should not be sufficient for eligibility. To be compensable, disability should be not only generally incapacitating and substantial but also protracted or reasonably permanent. In most cases, it is difficult to make a medical determination of permanency, for the possibility of future improvement cannot always be determined even after 6 months of disability. Moreover, the immediate economic need of the disabled individual and his family who have been without wage income for as much as 6 months is not reduced by the prospect of improvement in some distant future. Disability benefits therefore should be payable when a disabling condition, as defined above, has lasted for 6 months or longer, and benefits should be terminated when the incapacity no longer exists.

Under an insurance system, benefits would not be payable on the premise of disability alone—the disabled person would also have to meet the requirement of insured status. This requirement should be such as to test whether he had been in employment covered by the insurance system within a reasonably recent period, for a reasonably substantial time, and with reasonably substantial income. These factors would indirectly indicate whether the disabling condition was presumably the controlling cause of his inability to work, whether the claimant had derived a substantial part of his previous income from covered employment—and thus suffered a loss of income due to his disability—and whether he had contributed proportionately toward the cost of the benefits he claims.

Since retirement arising from disability resembles that caused by old age, extended disability benefits should be computed as in old-age and survivors insurance. Members of the disabled worker's immediate family should also receive benefits if they are dependent on him because of their youth, old age, disability, or responsibilities for care of young children. Benefits should be terminated if the disabled worker recovers, dies, or becomes entitled to old-age benefits. His insured status should be maintained while he receives disability benefits, so that his survivors may receive benefits if he dies, and he and his dependents may receive retirement benefits if he lives to retirement age.

Administration of disability benefits may well be interlocked with that of old-age and survivors insurance, with use of the existing administrative structure. The field organization and wage records of the existing system can be used in making medical certifications, determining eligibility for benefits, computing benefit amounts, and making payments. Both administrative and logical considerations make it desirable to combine in one program provision for meeting the three major risks of final loss of wage income—old age, death, and permanent total disability.

Benefit Changes and Other Proposed Modifications

Insurance rights.—The adequacy of benefits depends both on the relationship of the wage base used in computing benefits to the individual's normal earnings and on the formula applied to the computed wage base. Especially in view of the rising levels of wages and living costs, the Board believes that the benefit should replace 40 percent of the first $75 (instead of the present $50) of a worker's average monthly wage and 10 percent of the remainder up to $300. This change would be of particular value to beneficiaries with relatively low average monthly earnings. If benefits for permanent disability are provided, adjustments should be made so that years in which the individual was eligible for disability benefits would not operate to reduce his average monthly wage or his primary benefit.

The wage base for benefit computations should include a larger part than it now does of the worker's total annual wages from employment. In view of the higher levels to which earnings have risen, the wage base for contributions and benefits should be raised from the first $3,000 to the first $3,600 a year paid to a worker for covered employment. This base approximates the maximum taxable under the Railroad Retirement Act.

A reasonable basis for insured status should not impose unduly high requirements on persons who are brought into an already functioning system by a change in the law. At the same time, in justice to all contributors, old-age benefits should not be paid on the basis of small contributions over a very short period of time. Adjustments will also be needed to enable farmers and other groups of self-employed persons who receive all or most of their income at one time in a year to qualify for benefits on the same basis as others whose income is received throughout the year.

If coverage is generally extended, the Board recommends that the following changes be made in eligibility requirements.

1. A worker should be considered fully insured if half the years elapsing between 1936 (or age 21) and attainment of age 65 were years of coverage or if he has 10 years of coverage, whichever is less.

2. Alternatively, if he could not meet this requirement, he should be considered fully insured if 5 of the 10 years immediately preceding his death, retirement, or attainment of retirement age were years of coverage.

The worker's benefits are based primarily on his "average monthly wage" which is, roughly, the total of his wages in covered employment divided by the number of months after the act became effective and before he qualified for benefits, excluding periods before age 22 when he was not employed. Many workers brought under the program by extension of coverage would have very small amounts if all years since 1936 (or attainment of age 22) had to be included in the divisor of the fraction used to derive the average monthly wage. Older workers in the newly covered groups might receive only minimum benefits regardless of their actual wage rates while working. A less severe but still important benefit loss is now suffered by workers who are regularly in covered employment but have substantial periods of unemployment or disability. One method of avoiding such losses would be to define the average monthly wage as the quotient obtained by dividing the worker's total wages by 12 times the number of years of coverage, thus eliminating from the divisor all years in which the worker had taxable wages of less than $200. If this method of computation were adopted and accompanied by widespread extension of coverage, the average monthly wage would be much more closely related to the worker's normal earning power than it is now.

If coverage is extended widely, the Board also recommends that the minimum primary benefit be $20 instead of $10 a month. This change would result in a $30 minimum monthly benefit to a retired man and his wife and a $10 minimum monthly benefit to a dependent or a survivor, except when the benefit was reduced for several beneficiaries in a family by the maximum limiting the total amount payable to a family with respect to one wage record.

The rise in wage levels and living costs has made wholly anomalous the so-called "work clause," which suspends benefits for any month in which a beneficiary earns more than $14.99 in a covered job; benefits payable to a worker's dependents on the basis of his wage record must also be suspended for any month in which he has more than the permitted amount of taxable earnings. A chance to earn in part-time or occasional jobs is of psychological as well as financial importance to old people and other beneficiaries. The permitted amount of earnings can well be increased to $25 or $30 without fear that beneficiaries will encroach on job opportunities of regular, full-time workers.

The Board also recommends that the age at which women may become eligible to receive benefits be reduced to 60 years. Many employers retire women at age 60, and the gap between retirement and age 65, the age of eligibility for old-age insurance benefits, may cause considerable hardship. A woman who is widowed or loses her job at age 60 often finds it extremely difficult to obtain work. Wives are usually younger than their husbands, and a worker may feel obliged to continue at work, if he can, until his wife reaches age 65; otherwise they might have only his primary benefit amount to live on.

Family benefits.—Technical defects in marital status have denied benefits to some women long accepted as wives by the communities in which they live. The Board recommends that any woman who has been thus accepted as the worker's wife receive benefits on the same basis as a legal wife or widow, provided there is no impediment to a valid marriage at the time she applies for benefits or at the time of her husband's death. This provision would avoid raising issues of validity in a common-law marriage of long duration. For additional protection of the children, widow's current benefits should be paid even if there was an impediment to legal marriage. They should also be paid to a divorced wife if she has in her care a child entitled to benefits and was herself receiving support from the worker before his death.

Full protection of children requires provisions to take care of situations in which (1) there is a defect in the legal relationship between the child's parents or (2) the child's foster parents have failed to adopt him. The intent to have a marriage is usually clear if the persons concerned are living together and there are children; the intent of many foster parents—for example, grandparents—to assume full responsibility for the child is equally clear, although it often does not occur to grandparents to adopt a grandchild. The Board recommends that benefits be paid to illegitimate children who were either living with or being supported by the wage earner, since his death or retirement affects them as it would his legitimate or adopted children.

Monthly benefits should be paid to children on the basis of their mother's wage record when she has been their chief support and their father is disabled. If disability benefits are provided, the Board believes that monthly benefits should be paid to disabled husbands and widowers at age 65 on the basis of their wives' wage records. These provisions would increase the equity of the program for working women and increase the area of protection of a wage earner's actual dependents.

The top limits set for family benefits in 1939 have proved too restrictive. Nearly half the children under age 18 are concentrated in large families that constitute only 6 percent of the survivors' claims. Thus many thousands of children in the families least able to afford reductions have had their benefits reduced by the provision that the total of all benefits payable with respect to a worker's wage record may not exceed twice the primary benefit amount. This limit should be removed, especially in view of the even larger numbers of children in the farm families it is proposed to bring into the program.

The Board also believes that the general rise in wage levels and prices and its proposal to broaden the wage base indicate a need for raising from $85 to $120 a month the maximum amount payable with respect to a worker's wage record. For large families, this increase would permit payment of 80 percent of the worker's average monthly wage up to $150, and might increase the benefits payable when the average wage had ranged from $105 to $300. Provision that total benefits may not exceed 80 percent of the average monthly wage, however, should not operate to reduce a family's benefits to a total of less than $30 a month.

When the youngest child in a deceased worker's family is just under age 18 or is working, the total monthly payments to him are often less than the lump sum which would have been paid on the worker's wage record if the child had been just over age 18. Both because of this anomaly and because survivors who receive monthly benefits for current living costs also need the lump sum to meet the expenses entailed by the death of the worker, payment of the lump sum is recommended even when immediate monthly benefits can also be paid.

Administration.—Several minor changes are desirable from an administrative point of view; some of the Board's recommendations in such matters are as follows.[7]

Wage records may not be changed after a statutory 4-year period, except to conform to tax reports or when the Board was on notice of an error within the statutory period. The Board should have authority to correct wages posted to the wrong period or account, regardless of the statutory period; to transfer wages between its records and those of the Railroad Retirement Board; and to reinstate wages incorrectly deleted on information given by the employer without the knowledge of the worker. For uniformity among Federal laws, the statute should be amended to run for exactly the same period as that of the Bureau of Internal Revenue. It is also recommended that the Board receive broad authority to make up underpayments by payments to individuals or estates and to recover overpayments either directly from the overpaid individual or by deducting the amount overpaid from current benefits.

---

[7] For Federal legislation enacted after June 30, 1946, see pp. 518–520.

UNEMPLOYMENT INSURANCE

When large-scale lay-offs from war industries began, immediately after Japan's surrender, most persons who lost their jobs were protected under the Federal-State system of unemployment insurance. The Federal Railroad Unemployment Insurance Act provided unemployment benefits for railroad workers. Ex-servicemen, too, had protection against unemployment in the readjustment allowances provided under the "GI Bill of Rights." This was the first time since the United States initiated unemployment insurance that workers laid off in vast numbers had such protection to tide them over between jobs.

Victory in the Pacific found many State employment security agencies administering laws that had been significantly amended during the 1945 State legislative sessions; State agencies were also administering Federal readjustment allowances for veterans. Their staffs had to be expanded almost overnight; supplies and equipment were inadequate, as were the funds which had been appropriated by Congress on the assumption that the war in the Pacific would continue throughout the fiscal year. The Social Security Board made all possible staff and resources available to the State agencies. Although benefits were paid somewhat less promptly than before, State agencies, in the main, did a splendid job of tackling an unprecedented load.

Unemployment insurance tided workers over between jobs by providing them with some income based on their previous earnings. Moreover, it helped to smooth the turn-over of the labor force and adjustment to the changing demand for labor. It gave workers a reasonable time to find work that utilized their highest skills, at wages comparable to their prior earnings. It gave employers the assurance that the workers they hired had had time to look around for jobs that were appropriate to their skills and previous earnings. This chance to effect a better distribution of the labor force among industries, occupations, and establishments than would have been possible if individuals had had to take any work as a stop gap, means better utilization of the country's human and technical resources and, in turn, more production and purchasing power, higher real earnings for workers, and higher gains for capital.

Unemployment Insurance in 1945–46

Covered Workers

Employment covered by State unemployment insurance laws, which averaged 23.1 million a month in 1940, reached a wartime peak of 31.3 million in June 1943. By the beginning of the fiscal year 1945–46, covered employment had declined to 28.4 million as production was regeared for a one-front war. Three months later, it fell to 26.4 million—the lowest point since April 1941. An increase beginning in the autumn of 1945 brought the number of persons in covered jobs to 27.4 million in March 1946. Within a year, however, many more persons have some work in covered industries than are employed in them at any one time. It is estimated that in 1945 about 42.5 million different individuals earned some wages in covered employment, and about 85 percent of them, or 36 million, had sufficient wage credits to qualify for benefits under State laws.

Nevertheless, the jobs of about 12 million wage earners were excluded from unemployment insurance. Among them are 1.7 million agricultural workers, 2 million employees of small firms, 2.5 million employees of the Federal Government, 2.8 million employees of State and local governments, and 3 million in the groups of domestic workers in private homes, employees of nonprofit institutions, and excluded maritime workers.[1] Workers in all these groups face risks of unemployment. The Social Security Board has consistently urged that the protection of unemployment insurance be extended to these and other fields, and States have been encouraged to extend coverage of their laws beyond the limits of the Federal Unemployment Tax Act. Though some States have gone beyond the Federal act in covering employees of small firms and maritime workers, progress has been slow in the absence of Federal action to broaden the coverage of the Federal Unemployment Tax Act.

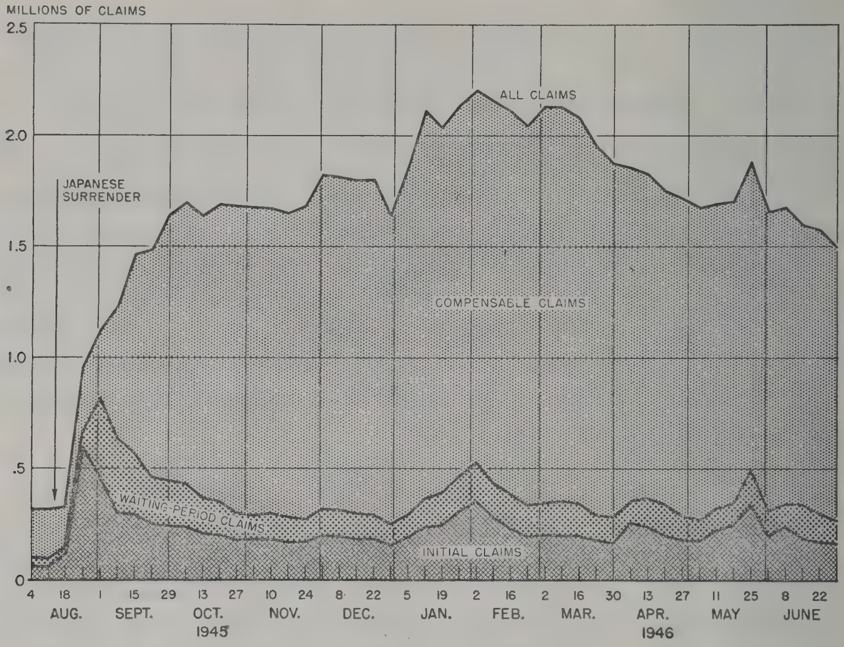
Claims for Unemployment Benefits

Course of the claims load.—In July 1945, the first month of the fiscal year, 268,000 initial claims and 1,081,000 continued claims for benefits were filed. Claims for unemployment benefits, which had been increasing slowly and continuously since VE-day, rose precipitously after victory in the Pacific (chart 6). During the week following the Japanese surrender, nearly 600,000 persons initiated claims, and in each of 4 months—August and September 1945 and January and May 1946—more than a million workers filed initial claims under the State unemployment insurance laws. The number, however, was low in comparison with the number of workers laid off. The week

---

[1] For Federal legislation enacted after June 30, 1946, see p. 518.

CHART 6.—*Weekly number of claims for unemployment benefits under State laws, by type of claim, August 4, 1945–June 29, 1946*



ended August 25, 1945, marked the peak in number of workers separated from war jobs. The uninterrupted monthly drop from August to December in initial claims—from 1.2 million to 0.7 million in the country as a whole—was accompanied by a rise in the proportion of initial claims filed by workers entering a second or subsequent spell of unemployment in the benefit year; some of the jobs which workers found after filing their first claims for benefits proved to be temporary. On the average, however, claimants experienced only 1.3 spells of unemployment in 1945–46, somewhat less than in the previous fiscal year.

Labor unrest, caused by general demands for adjustments of wage rates to economic and business changes, reached a high in February and greatly affected the claims load, even though workers whose unemployment is caused directly by a labor dispute are usually not eligible for benefits. The effect of industrial disputes on claims loads was twofold. Claims were filed not only by workers actually involved in disputes, but also by workers laid off because their employers were unable to obtain necessary materials from plants directly involved in strikes. Difficulties arose in States where the legal provisions applied to veterans who claimed readjustment allowances under the GI Bill of Rights differed from those applied under the State law to civilians involved in the same dispute.

The total number of claims for waiting-period and compensable weeks continued to mount more or less steadily throughout the autumn and winter. The crest of reconversion unemployment was passed in March 1946, however. Continued claims filed for the week ended March 9 represented a peak of 6.8 percent of the average monthly covered employment in 1945. The subsequent decline was due to a decrease in the rate of demobilization of servicemen and their displacement of civilian workers, and to the expansion of peacetime production after settlement of wage disputes. Nevertheless, claims for readjustment allowances filed by veterans under the GI Bill continued to rise during the spring. Many of the discharged servicemen did not return to the civilian labor force immediately; perhaps 2 million of the 8 million demobilized between July 15, 1945, and March 15, 1946, entered school or were temporarily out of the labor market for other reasons. In January 1946 the weekly number of veterans' claims for unemployment allowances passed the million mark, and at the end of March unemployment compensated under the veterans' program began to exceed that compensated under the State laws. By the end of the fiscal year, about 1.3 million unemployed workers were filing initial or continued claims under State laws, while veterans filing for unemployment allowances numbered about 1.9 million.

Many skilled or semiskilled workers claimed unemployment benefits during the fiscal year, while job openings were frequently for the unskilled or for workers in the heavy industries. Despite the large volume of claims, most of the persons who lost their jobs soon found other employment or left the labor market without filing a claim for benefits. Of those who filed initial claims and had sufficient earnings to qualify for benefits, about 75 percent drew benefits. Some who did not receive benefits were disqualified, but by far the larger proportion were reemployed during the waiting period.

Steps to deal with heavy claims loads.—For some time before the victory, the Board had been planning with the States for the inevitable rise in claims. Within 2 weeks after the Japanese surrender, the Board forwarded to the States a description of local-office procedures, designed to help the States simplify their operations in order to cope with heavy claims loads. Although both centralized and decentralized benefit operations were described, decentralization of benefit determinations to the local offices as well as general simplification of benefit-payment procedures was recommended. During the year, 34 States operated with some decentralization of the benefit-determination function.

To make the best use of available local-office space and staff, the Board permitted modification of its standard requiring weekly reporting of claimants. Regional offices of the Board were authorized to allow States to establish biweekly reporting on a temporary emergency basis when the volume of claims warranted it, provided adequate methods were assured for referring workers to jobs. To permit State agencies to simplify their procedures and eliminate delays, Board standards relating to claims determinations, separation notices, and the payment of partial benefits were reviewed and modified. A new standard was adopted on separation information and claims determinations, designed to ensure that State regulations and implementing procedures provide for full payment of benefits when due and afford an opportunity for a fair hearing.

The large crowds waiting to file claims for benefits made it necessary for the United States Employment Service and the State employment security agencies to develop plans for routing and scheduling workers so that both the unemployment insurance and employment service functions could be performed properly. As a result of a previously approved arrangement, the USES transferred personnel on a temporary basis to assist in taking claims.

Despite all efforts, however, benefit-payment procedures bogged down in some States in which large backlogs of undetermined or unpaid claims developed. The Board offered technical assistance on methods of processing benefit payments and provided such assistance, through surveys of benefit operations, to 16 States. While payments were generally somewhat delayed during this year, some States managed to make payments promptly throughout the reconversion period.

Interstate claims.—In September 1945, continued claims filed by interstate workers were only 5.6 percent of all continued claims. Apparently many workers who had previously crossed State lines to take war jobs did not go back as soon as they lost those jobs. As pockets of unemployment began to develop in particular areas, an increasing proportion of continued claims were interstate claims, which reached a peak of 10.2 percent in April 1946. This peak, however, was below the annual average for 1943 (10.4 percent). Nevertheless, interstate operations were the major activities of local offices in many States, especially agricultural States from which workers had migrated to industrial centers. While a few large industrial States had many out-migrants, generally less than 5 percent of the benefits paid in such States went to workers who had moved to other States.

The general increase in the claims load, as well as the increase in interstate claims, resulted in delays in interstate payments. Many of the difficulties in interstate operations stem from the failure of States to accept one another's findings of fact and from lack of uniformity in procedures and methods and lack of adequate training of claims takers. A canvass of opinions of State personnel indicated that inadequate training of local-office staff probably was the most serious cause of delay. Consequently, the Board arranged a series of regional meetings for training operating personnel of State agencies directly responsible for interstate operations. The Board has continued to make available to local offices information on provisions in other States needed by personnel taking interstate claims, and has also circulated information on the relation of rights of veterans under the readjustment allowance program to their rights under State laws.

Unemployment Benefit Payments

By July 1945, most of the amendments enacted during the 1945 State legislative sessions had become effective. The substantial liberalization of State benefit provisions permitted unemployed workers to use more fully, for benefit purposes, their high earnings and full employment of the war years. Because of these unprecedentedly high base-year earnings, the proportion of claimants who had sufficient wage credits to qualify for benefits during the fiscal year 1945–46 rose above 90 percent. A large proportion of insured claimants—75 percent—were unemployed long enough to receive a benefit check. That figure varied greatly among the States, from 99 percent in Indiana, where there was a heavy concentration of war production, to 47 percent in New Mexico, which had relatively little war expansion or reconversion cut-backs. In all, approximately 5.3 million workers, more than in any previous year, drew at least one benefit check during the year.

Duration of benefits.—Though most claimants were reemployed long before they exhausted their benefits, the average beneficiary received payments for 11.5 weeks, longer than in any previous fiscal year; this figure somewhat exaggerates the length of each spell of unemployment, since claimants averaged 1.3 spells of unemployment during the year. Although reconversion proceeded favorably, loss of wartime jobs meant prolonged unemployment for many people, particularly in areas like Michigan and, later, the west coast.

Most of the improvements in the duration provisions of State laws have taken the form of increases in the maximum potential duration, which were made by 29 States during the 18 months ended June 30, 1946. By that date, more than four-fifths of all covered workers were in the 33 States with a maximum duration of 20 weeks or more;[2] under the 1940 laws, only 18 percent of all workers were in States with this provision. In New York, all insured workers—and in Illinois, Maryland, New Jersey, and Washington, workers with high earnings—may receive benefits for as long as 26 weeks. Only 14 States provide a uniform duration of benefits for all eligible workers. In the other States, the potential duration of benefits is based on a claimant's prior earnings and may be less than the maximum provided in the State law.

---

[2] In addition, a maximum of 25 weeks, instead of 16, goes into effect in Alaska on October 1, 1946.

Even in the fiscal year 1945–46, more than a million beneficiaries exhausted their rights to benefits. They represented about 40 percent of all beneficiaries. In some States more than half the beneficiaries were still unemployed when they received their final check. The proportion that exhausted benefits ranged from about 30 to 50 percent among most industrial States and from about 50 to 80 percent among States in which cancellation of war contracts left workers with few comparable job opportunities.

Amount of benefits.—More unemployment insurance benefits were paid than during any previous fiscal year, and in larger amounts. As a result, beneficiaries received more than $1 billion, a record outlay. Benefit payments in each month but the first three and the last exceeded $100 million, almost twice the highest amount paid in any previous month since the program began.

The average weekly payment for total unemployment in 1945–46 was $18.81, the highest average for any fiscal year. In most States, payments were highest in October–December 1945, when the average in six States exceeded $20 a week. Of the insured claimants in that quarter, more than half were entitled to $20 or more a week, and only 15 percent to less than $15. The average weekly payment rose from $10.66 in the calendar year 1939 to $15.90 in 1944 and $18.93 in 1945. Average benefits during the year 1945–46 varied widely among the States, ranging from $12.31 in North Carolina to $23.60 in Utah.

Since 1937, the number of States with a maximum weekly benefit of $20 or more has increased from zero to 28. By the end of 1945–46, however, beneficiaries in only 6 States (Connecticut, Hawaii, Massachusetts, Michigan, Utah, and Washington), which included about 14 percent of the country's covered workers, could receive as much as $25 a week, the maximum recommended by the Board.[3]

Despite the increases, the maximums have failed to keep pace with rising wage levels and thus continue to limit the benefit rights of the great majority of claimants. While 58 percent of all payments were made at the States' maximums in 1944, 75 percent were at the maximum in 1945. In 6 States, more than 90 percent of the payments were at the maximum. Moreover, 70 percent of the claimants who established rights in October–December 1945 were entitled to the maximum weekly payment, and in 6 States this proportion exceeded 85 percent. While average weekly earnings of covered workers in July–September

---

[3] A $25 maximum becomes effective in Alaska, also, on October 1, 1946.

1945 exceeded $40 in 25 States, only 9 of these States provided a maximum benefit of more than $20. In other words, a large proportion of the workers drawing unemployment insurance receive less than half their previous weekly earnings because of the limits on maximum benefits. These limitations will assume greater significance if the prices workers pay for basic necessities rise markedly.

During the 1945 legislative sessions, Connecticut, Nevada, and Michigan joined the District of Columbia in increasing the weekly benefit for claimants with dependents, and in 1946 the Massachusetts Legislature added dependents' allowances to the law, effective April 1, 1947. The Board believes that provision of allowances for dependents of claimants enables the program to carry out its functions more effectively, since it increases benefits for claimants with family responsibilities without entailing the costs that would be necessary if the benefits of all workers were geared to amounts that take account of such obligations.

Disqualifications and Appeals

With reconversion, millions of workers found that their jobs had disappeared and, with the jobs, the demand for the skills they had acquired. The work available to them was often in other towns, other industries, and other occupations. Reduction in hours of work cut down take-home pay, and wage rates in available jobs frequently did not match rates in wartime occupations. Labor disputes developed, primarily on wage rates. Decisions made on a worker's eligibility for and disqualification from benefits reflected all these circumstances.

To be eligible for benefits, a claimant must have sufficient wage credits and must also meet tests of his current attachment to the labor market and the genuineness of his unemployment. Under these tests he must be able to work and available for work, and his unemployment must not result from disqualifying causes specified in the State law, including leaving work voluntarily without good cause, discharge for misconduct, refusal of suitable work, and unemployment due to a labor dispute in which he is directly concerned. While all State laws contain these eligibility and disqualifying conditions, their interpretation in the light of changing labor-market conditions and local customs is left to State agencies, limited only by requirements of Federal law designed to assure payment of benefits to all persons eligible under the State law and to protect labor standards. Use of State advisory councils and local appeals tribunals representative of employer and employee groups should aid the State agencies in making the program understandable to the public.

Because 1945–46 was a year of transition, wartime concepts of availability for work, refusal of suitable work, and good cause for voluntarily quitting a job had to be reexamined. So also had concepts that were carried over from depression times. These reconsiderations came at a time when the local offices were swamped with claimants. To aid the State agencies in training newly recruited staff, the Board distributed to all State agencies policy statements on voluntary quits, availability for work, and refusal of suitable work, and a special report on particular problems in determining such questions for women claimants. These statements served to clarify the long-range principles underlying the various disqualification and availability-for-work provisions and to promote consistency in benefit determinations and appeals decisions. As part of its function to act as a clearing house for information on State practices, the Board also distributed copies of policy statements issued by various State agencies. Ever since the program began, the Board has issued a monthly compilation of selected precedent benefit decisions of all State appeals tribunals and courts, which a State can use in formulating and interpreting its own policies. By arrangement with the Veterans Administration, selected decisions of State appeals tribunals on servicemen's readjustment allowance claims are included.

Determination of eligibility for benefits and disqualification from benefits involves close relationships with the employment service, which refers claimants to jobs and certifies as to the circumstances surrounding refusals of work. When few workers were unemployed and claimed benefits, the USES, acting as the operating arm of the War Manpower Commission, directed its major attention toward manning war production. Throughout this period the USES was under direct Federal operation and performed its functions as a service necessary for the proper operation of the unemployment insurance system.[4] With the end of war production, the referral policies of the USES were immediately reviewed from the standpoint of the placement function itself and of the relationship of that service to the payment of unemployment benefits. As claims loads increased, employment service interviewers soon realized that their performance vitally affected the payment of benefits. Joint studies of the USES and the Bureau of Employment Security showed clearly that, even in a tight labor market, job openings and job applicants often cannot be matched quickly.

Refusal of suitable work.—Through exchange of views by Federal and State authorities, new emphasis was given to the concept that workers should have "a reasonable period of time" in which to adjust to the great changes in labor-market conditions before they are disqualified for refusing a job which differs in skill or wages from their previous job. Since an employer is not compelled to hire the first applicant for a vacant job, but has time to make his choice among several applicants, it is believed that a worker, too, should not be forced to accept the first job offered him but should have enough time to decide which of the available positions makes best use of his training and experience. In such circumstances, a certain amount of frictional unemployment is inevitable. It furthers the smooth operation of our economic system, adjustment of the working force in individual plants, and adjustment of individual workers to changing work conditions. After a time, the worker must choose between jobs. For some, the new job would be less attractive than the earlier one; for others, it might prove more attractive. The brief spell of benefit payments can change neither the level of wages nor the distribution of jobs at occupational levels. All it does is to assure the worker time to make a choice between jobs.

---

[4] For Federal legislation enacted after June 30, 1946, see p. 521.

Availability for work.—Often the only jobs available for claimants were in other towns, sometimes with poor transportation facilities to and from work. Reduction in hours of work and in the number of shifts made it difficult for some workers, especially women, to take available jobs and still carry their household responsibilities; wages offered were not equal to the economic value of the services they could perform at home. Employer specifications became more stringent. Many women who had entered gainful employment during the war withdrew from the labor market when ex-servicemen returned. These labor-market changes necessitated a new interpretation of availability for work. Availability still meant that claimants must be currently attached to the labor market, but at the same time it had to be interpreted so as not to deny benefits to a claimant who was unemployed and wanted a job but could not immediately get one that measured up to what he had had. These general concepts were interpreted differently by different States.

Extent and type of disqualification.—Under State unemployment insurance laws, disqualifications take two forms: postponement of benefits either for a specified period or for the duration of the claimant's spell of unemployment; or cancellation in whole or in part of the worker's potential benefit rights or reduction in his benefits, usually in addition to postponement. Reduction of benefit rights may be mandatory or may be left to the discretion of the State agency. In 25 States, disqualifications postpone benefits for one or more of the three major issues—leaving work voluntarily without good cause, discharge for misconduct, and refusal of suitable work—while 26 States provide for cancellation of wage credits or reduction of benefit rights, in addition to postponement. Of the 329,000 disqualifications imposed during the 9 months July 1945–March 1946, nearly 73 percent involved only the postponement of benefit rights, while 27 percent also involved reduction or cancellation of benefit rights.

It is significant that 55 percent of the disqualifications involving only a longer waiting period were for an indefinite period—usually for the individual's spell of unemployment or until he was reemployed and had earned a specified amount of wages. If a period of unemployment is prolonged, disqualification for its duration may eliminate all the claimant's benefit rights as completely as if all his wage credits had been canceled. If the disqualifications postponing benefits for an indefinite period are added to those involving a cancellation of benefit rights, almost two-thirds of the disqualifications imposed were severe, depriving claimants of unemployment insurance protection at a time when they were likely to need it most. Of the disqualifications which merely postponed benefits, only 11 percent were for less than 4 weeks and 32 percent were for less than 6 weeks.

The Board believes that disqualifications should involve postponement of benefits for only a limited period following the disqualifying act and should not involve reduction or cancellation of benefit rights. Disqualifications should be considered as limitations on the risk covered, not as punishment for misdeeds.

Cash Benefits for Temporary Disability

The fiscal year saw increasing interest in provision of benefits for workers whose unemployment is due not to lack of work but to incapacity for work. California enacted a law establishing benefits for temporary disability, to supplement its unemployment insurance act, and several significant amendments were made to the Rhode Island Cash Sickness Compensation Act. Both laws are administered by the agency that administers the State unemployment insurance law, and both are financed by employee contributions, which formerly were paid into the unemployment fund. In addition, several bills relating to disability benefits were introduced in the 1946 legislatures in Massachusetts, New Jersey, and New York. Reports on the development of disability insurance programs were issued by the Illinois agency and by the New Jersey Commission on Post-War Economic Welfare. Throughout the year, the Board has conferred with the States in their consideration of disability insurance legislation and has cooperated in studies they were making. It has continued its work with the Rhode Island agency and is working with fiscal officials in California to determine an equitable basis of allocating costs of administering the two types of benefits, since Federal grants under the Social Security Act cannot be made available for administering the State's program for cash benefits in temporary disability.

Some bills introduced in State legislatures would establish disability benefits independent of the existing unemployment insurance laws. All legislation adopted and most bills proposed, however, contemplated the development of integrated unemployment insurance and temporary disability systems. From the point of view of the States, this integration permits economies in the use of the same wage records and much of the same administrative machinery for the two programs. From the Federal standpoint, it urgently requires a decision regarding the proper function of the Federal Government in State temporary disability programs.

The earliest State proposals to the Board for the payment of cash benefits during disability took the form of proposals for the payment of unemployment insurance benefits to disabled workers. Further interest in disability benefits was stimulated by the State agencies' administration of the Servicemen's Readjustment Act of 1944, under which readjustment allowances continue to be payable to veterans who become disabled for work after the beginning of a continuous period of unemployment. These proposals made it necessary for the Board to interpret provisions of the Social Security Act and the Internal Revenue Code which require that all money withdrawn from the unemployment trust fund must be expended in the payment of unemployment compensation (and for refunds of sums erroneously paid into the fund). The Board concluded that Congress intended the phrase "unemployment compensation" to refer only to unemployment due to lack of work and not to unemployment due to disability. It approved, however, a variant of the provision in the Servicemen's Readjustment Act that was involved in new provisions in Maryland, Montana, and Nevada. Under these provisions, claimants who become ill while unemployed and after registering for work may continue to draw unemployment compensation until work becomes available that would be considered suitable for them but for their illness.

Under the new California law, benefits were to become payable either on and after May 21, 1947, or 90 days after a determination had been made that, consistent with the Federal law, employee contributions deposited in the unemployment trust fund could be transferred to a disability fund. The Board held that, without further legislation, such a transfer was not consistent with the requirements of the applicable Federal acts.[5] In addition to California and Rhode Island, seven States have at some time collected employee contributions under their unemployment insurance laws and thus could propose use of such funds to initiate disability insurance with an accumulated reserve. A further question arises on the use of Federal grants to States for administering cash disability benefits. Although some of the standards in title III of the Social Security Act and in the Internal Revenue Code are equally applicable to administering disability benefits, others are inapplicable and there are no standards relating specifically to the minimum qualifications of a sound disability program. Serious consideration might well be given to amendment of title III of the Social Security Act to permit use of such funds for administering State temporary disability insurance laws under appropriate Federal standards.

---

[5] For Federal legislation enacted after June 30, 1946, see p. 518.

Financing the Federal-State Program

Funds available for benefits.—Despite the sharp increase in benefit payments during the fiscal year, on June 30, 1946, the State accounts in the unemployment trust fund totaled $6.7 billion. Funds available for benefits were the equivalent of 11.7 percent of 1945 taxable wages, or more than 4 years' employer contributions at the standard rate for the country as a whole. This total was slightly above the amount of State reserves at the beginning of the fiscal year. Thus, benefit costs during the heaviest unemployment of the reconversion were financed without dipping into the reserves built up during the war.

While the reserves of most States followed the national trend, in 13 States benefit payments during the year exceeded the total of contributions and interest. Generally, they were the States with the highest relative concentrations of war industries. At the end of the fiscal year, however, no State had a reserve representing less than 6.7 percent of 1945 taxable pay rolls.

For the country as a whole, the ratio of benefit payments to current collections rose to 108.2 percent, in striking contrast to the 5.7 percent for the preceding fiscal year. Benefits exceeded collections for the fiscal year in 16 States; 18 States, on the other hand, spent less than half their 1945–46 collections. Interest on investments of the fund, totaling $130 million for the year, more than offset the excess of benefit payments over collections, and the ratio of benefit payments to contributions and interest, for all 51 States combined, was 95.8 percent.

The State reserves in the unemployment trust fund have risen far more steeply and are larger than the framers of the legislation ever contemplated, even though prevailing benefit rates and duration are substantially higher and contribution rates lower than under earlier laws.

A reserve of nearly $7 billion is clearly larger than is necessary in a current-risk program. The primary change in financing now needed is a revision of method that would reduce accumulated reserves to an amount sufficient to finance adequate benefits over a business cycle. If the present tax-offset basis of financing is retained, the Board recommends reduction of the Federal unemployment tax to 2 percent, permitting the States an offset of 1.8 percent for contributions made or forgiven under State laws. Reduction of the standard rate from 2.7 percent to 1.8 percent would lower contribution rates for about half the million subject employers if the States adjusted their standard contribution rate to this figure. These employers would be chiefly small businessmen newly starting in business, many of them veterans.

While, unquestionably, funds accumulated for the payment of benefits to workers unemployed through lack of work greatly exceed anticipated needs, there may be a real question whether the Federal unemployment tax—and by inference, contributions to State unemployment insurance systems—should be further reduced when risks of temporary disability remain unprotected by most States. The wage loss is the same for workers who are unemployed, whether the unemployment is due to lack of work or to illness. Moreover, illness not only stops workers' earnings but also entails medical costs. It may be well to consider the use of the current excess in unemployment reserves as a potential financial aid to the establishment of State programs for temporary disability insurance, by permitting the use of accumulated funds for benefits to workers unemployed through lack of work or through illness. Since any new insurance program must face the difficulty of levying new taxes to finance it, such a use of funds in the State accounts in the unemployment trust fund should stimulate coverage of this new risk without impairing the financial security of the State unemployment insurance systems.

If the tax-offset basis of financing is retained and appropriate minimum benefit standards are established, the Board also recommends removal of the present conditions in the Internal Revenue Code for reduction of employers' contribution rates and substitution of a simple standard permitting the States to reduce contribution rates on any basis they choose—by individual employer variations, industry-wide differentials, or uniform flat rates—as long as the State fund is of such size as to give reasonable assurance of the payment of the benefits provided by the State law.

The present standards for allowance of reduced rates require that all rate reductions must be based on the experience of the individual employer "with respect to unemployment or other factors bearing a direct relation to unemployment risk during not less than the three consecutive years immediately preceding the computation date."

Unquestionably, States differ widely in the general risk of unemployment. Under the existing separate State reserve system, these variations should be reflected in the contribution rates charged employers. The present requirements in the Internal Revenue Code, however, permit rate reductions only on the basis of an individual employer's experience. The Federal requirements, in themselves, are very difficult to interpret and incorporate in a workable experience-rating plan and involve many intricate questions that have little practical effect in safeguarding the national interest that rate reductions must not jeopardize the payment of benefits. Though rate reductions have been substantial—for the country as a whole, more than one-third below the standard rate—funds have continued to accumulate. At the same time, no generally accepted criteria have been evolved for equitable measurement of individual employer experience, and the rates paid by employers in similar circumstances vary widely from State to State.

The present Federal standards prevent or hamper State adoption of plans for rate reduction that would be simpler and more desirable from the standpoint of the States and the Nation. The present requirements, for instance, penalize new employers by forbidding a rate reduction until after the employer has had 3 years of experience. Such a handicap should not be imposed, particularly in a period of reconversion when many of the new employers are veterans.

Many States believe it would be sounder and fairer to adjust rates on a uniform, rather than an individual employer, basis. Obviously a uniform adjustment applicable to all employers would be simpler and more economical to administer. It would avoid the necessity for keeping individual accounts for each employer and making complicated "chargebacks" and individual computations of rates.

Perhaps most importantly, the right of a State to adjust rates in a uniform manner will increase the possibility of rate adjustment on a long-run basis at levels sufficient to assure adequate income over at least a business cycle. Such stability in rates is sound from the point of view of proper financing of the program and also from the point of view of employers, who wish to know in advance what their contributions to the unemployment insurance program will be. One great defect of many existing experience-rating plans is that changes in rates run counter to business conditions; when conditions are good and benefit payments low, the contribution rate is also low; when business is bad and benefit payments high, contribution rates rise. The increases carry over into the initial stages of recovery, just when rates should be low to encourage business expansion. Stability in rates at a level below 2.7 percent, or the adjustment of rates to general business conditions, will be practicable only if change is made in the existing requirements for allowing rate reductions.

Costs of administration.—Congress initially appropriated $32 million for Federal grants to pay the costs of administering the 51 State unemployment insurance laws in 1945–46. On the basis of supplemental budgets submitted by the States after V-day, the Board requested, and Congress made, a deficiency appropriation of $25,042,000, bringing to $57,042,000 the total available during the fiscal year for Federal grants to States for unemployment insurance operations. Of this sum, more than $4.5 million was used to reimburse the USES for the cost of the claims-taking services rendered to State employment security agencies. Approximately $1.5 million of the overhead costs of State agencies in the fiscal year 1945–46 was paid from Veterans Administration funds as the share of joint overhead costs chargeable to administrative expenses of the program for veterans' readjustment allowances; in addition, the State agencies received about $13 million for the administrative costs of that program alone.

The Social Security Board has long believed that serious problems are inherent in 100-percent Federal financing of the administration of State unemployment insurance programs. Without State responsibility for raising revenue, there is little incentive for State economy of operations, and the Federal Government, though responsible for determining the actual amount to be allocated to each State for proper and efficient administration of State laws, has no direct responsibility for actual administration of those laws. Nevertheless, the Board has attempted to work out with the States not only the best methods of allocating the available funds among the States for the proper administration of their laws but also the best estimate of the total amounts States need, as a basis for requesting the Federal appropriation.

This year State agencies participated in preparing estimates of work loads and costs, in connection with the preparation of the appropriation request for title III funds. From the State agencies' estimates of work loads and costs, national estimates which accompany the appropriation request were prepared. State technicians aided in preparing instructions to States and in reviewing the data they furnished. The Board regards this cooperative arrangement with the States as an important step in furnishing the Bureau of the Budget and the Congress the best information possible. It should also be of incalculable aid in giving the State agencies a greater sense of responsibility for the total sums requested by the Board for this purpose.

Other Aspects of Federal-State Administration

One of the Board's chief functions is to assist the State employment security agencies in the performance of their functions. The Board's technicians in the Bureau of Employment Security, the unit of the Board directly concerned with unemployment insurance, give general suggestions to all State agencies and individual technical advice and help on request by specific States. Because it observes and receives reports from all the States, the Board also serves as a clearing house of information on legislative, interpretive, operating, and statistical experience of the States. The Board has also helped the State agencies in developing a broad informational program.

Operating problems.—Although primary emphasis was placed on helping the States meet the claims load, the Board also gave general advice and specific help on various other operating problems. To help the States improve their own procedures, the Board published recommended procedures for determining employer-liability status, based on the most effective State practices. Board technicians also aided States in connection with problems of collecting and processing contributions and of experience-rating procedures. Field surveys of the State's operations and suggestions for improvement were made in seven States.

Employers, particularly those who operate in more than one State, find their social security reporting complicated by differences between State and Federal requirements, and variations among States, in determining the wages to be reported for tax purposes. Representatives of business, State agencies, the Bureau of Internal Revenue, and the Board held several meetings in an effort to reach an agreement on a uniform definition of wages.

Illinois and Utah have been conducting experiments with the use of wage reports under the Federal old-age and survivors insurance system as one way to eliminate the need for collecting individual wage records and maintaining wage-record files. In the Utah test, the Bureau of Old-Age and Survivors Insurance furnished the agency with copies of quarterly wage cards for all covered workers in the State. These cards were used to determine wages and were carefully checked against employers' reports to the agency. The agency considers the records more accurate than any it could afford to maintain. These services, however, were discontinued at the end of the fiscal year because Congress did not approve a proposal that a State could reimburse the Bureau of Old-Age and Survivors Insurance for the cost of providing the wage records. The Board considers that the adequacy of old-age and survivors insurance wage records has been proved conclusively, and that further expenditure on an experimental basis cannot therefore be justified. The result of ending this procedure has been to deny a State agency's request for these wage records as a substitute for its own wage-record file, thus preventing a very substantial saving in cost.

Legislative policy.—Although 1946 was not a major legislative year, 22 State legislatures met in regular or special sessions during the fiscal year and 16 of them considered unemployment insurance and related subjects. Board technicians gave assistance to those States before and during these sessions. The Board also made available to State agencies general information on the provisions of all State laws and on State experience under the program, to serve as bench marks for comparing any law with that of other States, and furnished digests of Federal welfare legislation introduced in Congress. As usual, most State agencies sent the Board copies of proposed amendments to the State program to be reviewed by Board technicians for conformity with the requirements of the Federal act and for policy implications.

Coordination and dissemination of information.—With the reconversion of the economy, growing interest was evinced by the public, organized labor and employer groups, and many governmental agencies in the employment and claims data collected under State unemployment insurance programs. The Board has served as the coordinator in collecting and distributing comparable data from all States. States, too, have recognized the importance of such data not only for purposes directly related to the administration of unemployment insurance but also for broader use in interpreting and preparing for economic changes.

Two barometers of the national economy on which both governmental and private planning groups rely heavily are the monthly estimates of total nonagricultural employment in the United States, issued by the Bureau of Labor Statistics, and the national-income series of the Office of Business Economics, in the Department of Commerce. Both series use State data on covered employment extensively.

Immediately after VE-day, at the request of the Office of War Mobilization and Reconversion, the Board collected weekly reports on the number of initial, waiting-period, and compensable claims filed, and reinstituted two other series of unemployment data, dropped during the war.

With the rapid demobilization of the armed services, claims for veterans' readjustment allowances assumed growing proportions. Accordingly, at the request of the Bureau of the Budget, the Board has begun a new weekly series on insured unemployment, as represented by claims filed under the railroad unemployment insurance, veterans' readjustment allowance, and State unemployment insurance programs.

Improving Unemployment Insurance

The fiscal year 1945–46 offered an opportunity for demonstrating the effectiveness of the existing provisions of the Federal-State system of unemployment insurance. Unemployment was concentrated almost wholly among groups of workers covered by the system and among ex-servicemen, for whom other provision had been made. Most workers were not unemployed for long periods. Most had had steady employment and high earnings and therefore had substantial or maximum rights to benefits under the law of their State. The program therefore could and did provide an invaluable resource in aiding millions of families and the Nation as a whole in the emergency of economic and military demobilization.

Even in these circumstances, however, more than a million workers were still without jobs when they exhausted their benefit rights, and a large share of the beneficiaries drew benefits too low to replace a reasonable proportion of their actual wage loss. Other workers whose past employment and earnings made them eligible failed to receive any benefits, though they were actually unemployed, because they were held "unavailable" for work or were disqualified under an unduly harsh provision or application of State laws. In sharp contrast to the treatment accorded unemployed veterans, benefit rights and amounts varied widely among the States for persons with similar records of employment and wages. Employer contribution rates also bore with very different weight on employers who were in similar circumstances but in different States or had entered business at different periods.

Present limitations of coverage and inadequacies in benefit provisions will restrict the usefulness of the Federal-State system much more severely in ordinary times than in the highly unusual circumstances of the reconversion. Differences in the treatment of competing employers likewise would be more important in a buyers', rather than a sellers', labor market. Now that the crest of reconversion has passed, consideration should be given to ways of strengthening unemployment insurance for the long run. In the light of the past decade of experience, substantial improvement, the Board believes, can be made within the framework of a Federal-State system. On the other hand, the present affords an excellent opportunity to consider the basic relationship of unemployment insurance to the economy as a whole and its rational place in a comprehensive program of social security.

A Federal-State System of Unemployment Insurance

Coverage.—Whether or not any other change is made, the Social Security Board recommends that the coverage under the Federal Unemployment Tax Act be extended to employers of one or more and to many excepted employments.

Extension of the Federal law to employers of one or more would encourage or assure unemployment insurance protection for some 3.3 million workers excluded by size-of-firm provisions of the State laws. At present, only 16 States include employers of one or more. The Board has always favored a Federal system for maritime workers in coastal, intercoastal, and foreign commerce, because of the difficulty of determining which State law should cover a worker whose employment by its very nature is interstate. The Board has also favored extension of the Federal unemployment tax to employment on inland waters, thus leaving to the States coverage of this group of workers. However, recently proposed legislation would cover all maritime employment under State laws.[6] The Board believes that State coverage of maritime workers is far preferable to no coverage. Administration of such legislation should be watched carefully to see the way in which it affects workers' benefit rights and the prompt payment of benefits.

Federal employees likewise need unemployment insurance protection. With the demobilization of wartime services and the return of ex-servicemen to Federal jobs they previously held, such protection is of particular importance to hundreds of thousands of persons who served the Government during the war emergency. The Board believes that the provision should be made on a uniform basis, regardless of the State in which the service was rendered, since pay scales, leave regulations, and other conditions of employment are uniform for classes of Federal employees throughout the country.

Financing.—As indicated in preceding pages, unnecessarily large reserves have accumulated in the State accounts in the unemployment trust fund. If the tax-offset basis of financing is retained, the Board recommends that the rate of the Federal unemployment tax be reduced from 3 percent to 2 percent of covered pay roll and that employers be permitted to offset against the latter as much as 1.8 percent for contributions made or excused under the State unemployment insurance laws. Employers thus would pay only two-tenths of 1 percent, instead of three-tenths, into the Federal Treasury; the Board believes this rate would provide sufficient funds to finance Federal grants to States, as at present, to cover the full cost of administering the State unemployment insurance laws. At the same time, the Board recommends that authority be given States to permit State-wide reductions in employer contribution rates below the 1.8-percent rate on any basis they deem best, not merely, as at present, on the basis of the individual employer's experience with unemployment.

A system of Federal grants-in-aid.—As an alternative approach, a system of Federal grants-in-aid to States for unemployment insurance appears to the Board to offer solution not only of many complexities and anomalies in present financial arrangements but also of basic administrative problems inherent in the present program. Under such a plan, the Federal unemployment tax might be reduced to 1 percent and no credit allowed for contributions under State unemployment insurance laws. Out of the proceeds of the 1-percent tax, the Federal Government would grant the State half the total costs of its program, including costs of benefits as well as of administration. The States could finance their half of the costs of benefits and administration in any way they desired.

---

[6] For Federal legislation enacted after June 30, 1946, see p. 518.

The Board believes that States should use funds from their reserves to finance and improve their systems until the State reserve has been reduced to half the level at the effective date of the change, and that the Federal matching grants should not become payable until that level has been reached. Such an arrangement would not penalize a State with a relatively large fund, since the higher the State's reserve when the law was enacted, the higher the level at which Federal sharing would begin. During the interval, proceeds of the Federal tax would build up a Federal reserve for contingency purposes.

Though a grant-in-aid plan would not eliminate the present wide variations in effective contribution rates of employers, it would tend to lessen them. It would also provide an element of reinsurance, since the State which experienced considerable unemployment would receive relatively more in Federal funds than a State that did not. It would somewhat simplify employer reporting and would do away with possibilities of duplicate taxation that arise under the tax-offset provisions. It would give the States far greater flexibility than at present in financing benefit costs, and at the same time improve the stability of the system. The Federal Government would have greater assurance that the objectives of the program would be achieved at no greater Federal cost.

Minimum benefit standards.—Very considerable improvement has been made in benefit provisions of the State laws, especially in recent legislative sessions. Despite the ample reserves available to every State, however, some States still make little more than the limited provision characteristic of the system a decade ago. On the whole, the protection afforded by the State laws is still far short of a standard of adequacy that, in the opinion of the Board, has been proved feasible and necessary by the years of operating experience. Inclusion of adequate Federal minimum benefit standards as a condition of tax offset under the existing program could go a long way toward assuring adequacy of benefits throughout the country and thus protecting not only workers but also the national stake in the program. Among such standards should be assurance of 26 weeks' duration of benefits to any eligible worker whose unemployment continues for that period; a maximum weekly benefit, for workers whose wages entitle them to the maximum, of at least $25 for a worker with dependents; and standards relating to disqualification provisions. If adequate minimum standards are established, the Board recommends that permanent provision be made through a reinsurance fund for States whose funds run low, replacing the existing temporary provision for loans to such States. At a minimum, these temporary provisions for loans should be made permanent.

The Nation's Stake in Unemployment Insurance

The war economy, like the depression of the 1930's, has shown forcibly how closely the course of employment in the Nation is bound to forces over which neither workers nor employers can exercise control. Nor are such forces limited by State or even national boundaries.

The Board continues in the belief that it would be simpler, cheaper, and safer to cope with the national problem of wage loss from unemployment by means of a national social insurance program. A decade of operation of the Federal system of old-age and survivors insurance has shown how effectively and economically a national system can combine centralized mechanical operations with local and individualized service to employers, covered workers, and beneficiaries. With a scale that relates benefits, within given maximums and minimums, to previous earnings, unemployed workers in high-wage States and areas would receive higher amounts, on the average, than those in areas where prevailing wages were lower, but beneficiaries with a given amount of wage credits would receive the same benefits, no matter where they happened to be. Use of a single wage report and tax return for unemployment insurance and integration of administration could result in very substantial savings in public funds and in employers' expenses. The financing of unemployment benefits could be related far more closely and constructively to the economy as a whole than is possible when financial arrangements hinge on different concepts and procedures incorporated in 51 State laws and require the action of as many legislatures for adjustment to changing conditions. Under a comprehensive social insurance system, unemployment benefits could be related appropriately to benefits for other risks—old age, death of the breadwinner, and temporary or permanent disability—and many additional administrative savings could be made.

The Social Security Board is aware that strong opposition has been expressed to proposals for a national system of unemployment insurance, either as a separate system or as a part of a comprehensive program including social insurance against other major risks of wage loss. Further study of the risk of unemployment and of experience under programs designed to cope with this risk has affirmed the Board's conviction that national provision for meeting a national problem offers the course best suited to the development of adequate and equitable provisions for unemployment insurance in the United States.

PUBLIC ASSISTANCE

Even in a year such as 1945–46, several million persons in the United States needed public aid. For the most part they were persons outside the labor force—the aged, the blind and other handicapped individuals, persons suffering temporary or chronic illnesses, and children deprived of normal family support or care. Pride may be taken in the accomplishments of the States since 1936, when operations under the Social Security Act began, in providing three special groups of the population with needed money with which to buy food, shelter, clothing, and other essentials, even though in many States assistance is by no means adequate to meet individual need. Money, to be spent as the needy person deems best, preserves his dignity as well as his freedom to choose; it conserves or restores the spirit of self-responsibility that is a part of our heritage. The pauperizing effects of the grocery basket and the specter of the almshouse as the only recourse of those in want have all but vanished. At the end of this first decade, the Board believes that the foundation has been laid for extending public assistance under the Social Security Act to needy persons for whom such assistance is now not available and for assuring more nearly adequate aid administered on an equitable basis.

Public Assistance in 1945–46

Public assistance in the United States is provided through four major programs, all administered by the States and localities. Payments to three groups of needy persons—the aged, the blind, and children whose need arises from certain causes—are financed in part from Federal funds granted to the States under the Social Security Act. Aid to other needy persons is furnished for the most part through general assistance, toward which the Federal Government makes no contribution. In 1945–46, small amounts of assistance were granted under two war emergency programs—civilian war assistance and assistance to enemy aliens and other persons affected by restrictive governmental action—financed entirely from Federal funds and administered for the Federal Government by State public assistance agencies.

During the fiscal year all 48 States and the District of Columbia, Alaska, and Hawaii administered old-age assistance under the State-Federal programs authorized by the Social Security Act. All except

Nevada received Federal funds for aid to dependent children. Aid to the blind was administered under plans approved by the Social Security Board in all jurisdictions except Alaska, Missouri, Nevada, and Pennsylvania. Alaska made its first payments of aid to dependent children under an approved plan and Delaware, its first payments of aid to the blind.

Effects of War and Reconversion on Need for Assistance

The special types of public assistance—old-age assistance, aid to dependent children, and aid to the blind—are provided for persons who in ordinary times are too old, too young, or too handicapped to earn their own livelihood and who do not have sufficient resources to maintain themselves. During the war, some recipients of assistance and others who might otherwise have sought aid were able to get jobs. Other persons who might have been on assistance rolls were benefiting from the improved earnings of members of their family or from allowances as servicemen's dependents. For the most part those who found jobs were marginal workers, among the last to be hired when employment is on the upgrade and the first to be pushed out when employment begins to decline. Thus, though it takes some time for assistance rolls to drop when employment is rising, the effect of diminishing employment is quickly reflected in assistance programs.

Following V-day, the increase in assistance applications, already evident in all programs, was sharply accelerated. During January–March 1946, more than twice as many applications were received for general assistance and aid to dependent children as in the same quarter a year earlier, and in each of the other programs applications were up about two-thirds. By June 1946, application rates had slackened somewhat but were still far above those in the preceding year, presaging a continuance of the rise in assistance rolls well into the next fiscal year.

For the country as a whole, the number of recipients at the close of the fiscal year was below previous peaks by as much as 23 percent for aid to dependent children and 6 percent each for old-age assistance and aid to the blind. On the other hand, in some States—10 for aid to dependent children and aid to the blind, and 9 for old-age assistance—recipient loads were at the highest levels on record. In general assistance, the total number of cases in June 1946 was nearly 80 percent below the number in June 1940; only 2 States had more cases than they had had 6 years earlier.

For the country as a whole and in most States, average monthly payments to recipients increased during 1945–46, reflecting primarily the efforts of State public assistance agencies to enable recipients of assistance to meet the rise in living costs, insofar as maximums on individual payments and available funds permitted. Though State legislatures meeting in 1945 and 1946 removed or liberalized limits on payments for one or more of the special types of public assistance in some 20 States, statutory maximums of $40 a month or less were in effect for old-age assistance in 24 States, and for aid to the blind in 19 States in June 1946. In aid to dependent children, maximums of $18 for the first child and $12 for each other child aided in the family—or lower amounts—were still in effect in 11 States.

In some States, upturns in case loads, especially after V-day, created new demands on agency funds, making it impossible to maintain increases in individual payments and at the same time grant assistance to all eligible applicants. Some States kept payments at previous levels though pending applications mounted, while others postponed increases or actually reduced the amount of assistance granted each recipient. The marked differences among States in fiscal ability resulted in relatively large increases in monthly payments in some of the States where payments were already highest and in relatively small increases, or none at all, in some where payments had been lowest. In June 1946, therefore, the range in State averages for each program was greater than that a year earlier.

Recipients and Their Payments

Old-age assistance.—Recipients of old-age assistance in June 1946 numbered slightly more than 2 million, about 1 in 5 of the population aged 65 years or over. Among the 25 States with recipient rates above the national average, Oklahoma aided more than half, and Texas and Colorado, more than two-fifths, of their aged population. At the other extreme were 7 States in which the proportion of the aged receiving assistance was less than half the national average, including the large industrial States of New Jersey and New York. In such States, the relatively large proportion of the aged population in receipt of old-age and survivors insurance benefits may be presumed to account in part for low recipient rates for old-age assistance.

In June 1946, old-age assistance payments averaged $31.48 for the country as a whole. The average ranged from less than $20 in 11 States to more than $40 in 6 States. Of the States with averages below $20, all but Delaware are below the national average in per capita income, and all but Delaware and Virginia are among the 12 States with lowest per capita income. Payments are low in these low-income States primarily because financial resources are limited and the number of needy individuals is relatively large. Individual payments in these States for the most part do not even approach the Federal matching maximum ($40 per month),[1] though for the country as a whole, nearly

---

[1] For Federal legislation enacted after June 30, 1946, see p. 520.

11 percent of payments in November 1945 were at this maximum and almost 18 percent were in excess of $40.

Aid to dependent children.—State public assistance agencies operating under the Social Security Act in June 1946 granted assistance to 311,000 families in behalf of 799,000 children, who represented 19 per 1,000 children under age 18—about one-eleventh of the comparable rate for old-age assistance. Only 10 States had a rate of 25 or more. Six States had rates of 10 or less.

The average monthly payment per family in June 1946 was $53.71. Fortunately for the welfare of needy children, many States made payments larger than the amounts in which the Federal Government will share equally; at the end of 1945, more than half of all payments for aid to dependent children were above the Federal matching maximums. Average payments in June 1946 amounted to $75 or more per family in 8 States. In sharp contrast, average payments of less than $35 per month per family—which usually averages at least 3.5 members, including the mother or other relative caring for the child—were reported by 13 States. As in old-age assistance, the majority of States in which payments are lowest are those with low per capita income and hence with limited resources for meeting public assistance needs. Inadequate assistance forces mothers and older children to take jobs; younger children are deprived of home training and older children of schooling. In the long run, the entire Nation pays the penalty for having failed to provide an opportunity for healthful growth and development for this group of children.

Aid to the blind.—The number of recipients of aid to the blind in States operating programs under the Social Security Act in June 1946 was 57,600, or about 1 in 3 of the estimated blind population in these States. Nine States aided more than two-fifths of their estimated blind population, and 4 of these aided more than half. Recipient rates of less than 10 per 100 were reported by Connecticut and New Jersey, and by Delaware, which made its first payments under the act in November 1945.

The average monthly payment in June 1946 for States operating programs under the act was $32.89, slightly above that for old-age assistance. Average payments of $40 or more for June were recorded for 10 States, while 13 additional States made some payments in excess of $40, the Federal matching maximum.[2] In November 1945, nearly one-fifth of all payments in States with approved plans were above $40; in Arizona, California, and Washington, payments as high as $50 outnumbered those below that amount. In 12 States, on the other hand, the average payment in June 1946 was below $25. This group of States included 10 of the 12 with the lowest per capita income.

---

[2] For Federal legislation enacted after June 30, 1946, see p. 520.

General assistance.—In June 1946, the number of cases receiving general assistance—278,000—represented a seasonal decline from the peak in March, when the number topped 300,000 for the first time since the autumn of 1943. Though general assistance loads were smaller in a few States than a year earlier, the increase for the country as a whole was about 20 percent; in 5 States, case loads had increased by more than half. As in previous years, the general assistance load was relatively greater in large cities, where the program usually has better financial support; 19 large cities, with about one-fifth of the total population, carried about one-third of the general assistance cases and were paying almost 45 percent of all general assistance.

The average monthly payment per case rose steadily throughout the year and in June 1946 was $32.66. In this month, the average payment per case exceeded $40 in only 6 States. In 10 States—all but 1 with low per capita income—the average per case was less than $20, and in 6 of them, less than $15. In 4 additional States, for which complete data are not available, the estimated average payment was less than $20.

Civilian war assistance.—During the fiscal year, civilian war assistance provided necessary financial assistance and other welfare services to evacuees and repatriates who were returned from war-torn countries to the United States under Government sponsorship. Repatriation from the Pacific area, which reached a peak in the preceding fiscal year, continued at a slower rate during the first half of 1945–46. Financial assistance was provided to nearly 1,300 such persons or families during this period. During the second half of the fiscal year, nearly all the repatriates came from Europe. Over the entire year an average of almost 600 cases a month received financial assistance, and an average of 250 received services only. Immediate assistance at the port of debarkation and continuing assistance, when necessary, in the communities where these persons settled enabled many of these repatriates to weather the period of adjustment and resume self-support. In June 1946, 788 cases received assistance totaling $104,000, and 213 received services only.

Assistance to enemy aliens and others.—The exodus of persons of Japanese ancestry from war relocation centers, which began early in 1945 after revocation of the mass exclusion orders, gained momentum during the fiscal year. By the end of the year all evacuees were relocated and the centers closed. Similiarly, many enemy aliens were released from internment by the Department of Justice. Resettlement assistance and services under this program were provided to aid evacuees and internees in reestablishing themselves. In January, the peak month, 1,695 cases received $140,000 in assistance and 738 cases received services only. State and local public assistance agencies have assumed responsibility for long-time dependency cases by accepting them for one of the three special types of assistance or general assistance.

Financing Public Assistance

The States and localities spent $1,140 million in 1945–46 for assistance and administration under programs for old-age assistance, aid to dependent children, aid to the blind, and general assistance.

Of $439 million certified by the Social Security Board for approved State public assistance plans in 1945–46, 84 percent was for old-age assistance, 14 percent for aid to dependent children, and 2 percent for aid to the blind. The grants included the Federal matching share in payments to recipients and administrative costs of aid to dependent children and aid to the blind; for old-age assistance, the Federal grant for assistance payments is increased by 5 percent to be used for administration, assistance, or both.[3]

In 1945–46, civilian war assistance payments amounting to $977,000 were made by the State agencies from funds advanced or reimbursed by the Social Security Board. The resources available under the program for assistance to enemy aliens and others affected by restrictive governmental action were used more extensively during 1945–46 than in any of the preceding years. From funds granted by the Board as advances or reimbursement to State agencies collaborating in this program, a total of $1.3 million was paid to recipients from the beginning of the program through June 1946; of this total, $923,000 was spent during 1945–46. Initially, both these war emergency programs were financed from special allocations to the Federal Security Administrator from the President's Emergency Fund. That fund continued to provide for civilian war assistance throughout 1945–46, but a special appropriation to the Federal Security Agency, plus transfer of funds from the War Relocation Authority, financed assistance and services to enemy aliens and others affected by restrictive governmental action.

During the fiscal year, the Board continued to make available to State public assistance agencies Federal funds provided through the Selective Service System for essential costs of collecting medical and social information about Selective Service registrants. Costs of this program, substantially less than in the previous year because fewer men were inducted, amounted to about $252,000 for 1945–46 in contrast to $623,000 for 1944–45.

Administrative Developments

The Board is responsible for assuring that the provisions of State programs conform in framework and administration to the Federal conditions specified for their approval and that the State agency continues to be eligible for funds. Moreover, it issues information obtained through the cooperative Federal-State statistical reporting system and undertakes special studies on operations in all States.

---

[3] For Federal legislation enacted after June 30, 1946, see p. 520.

The Bureau of Public Assistance, to which the Board has assigned responsibility for carrying out most of its functions with respect to public assistance, works directly with State agencies through a regional staff and through consultants who, on request, are available to work with State agencies on standards and policies, staff training, and program planning. Through instructions to its regional staff and advice to the States, it seeks to assure uniform interpretation of Federal requirements and distribution of Federal funds in accordance with the provisions of the act. In addition, the findings of the administrative review conducted by the regional staff assist the State agencies in appraising their operations and improving their procedures.

Determining amounts of assistance.—An evaluation of State provisions for determining the amount of payments to be made to needy people, undertaken during the year, indicated that States vary greatly in the degree of responsibility that they assume for measuring income and resources and determining the amount of the recipient's payment. The States using a budgetary system fall into three main groups: (1) those in which the State agency establishes the specific requirements—such as food, shelter, clothing, fuel, light, water, and household supplies—that must be considered in all instances and the money value of each item not available to the individual; (2) those in which the State agency gives to the local administrative units, and to local staff, extensive responsibility for deciding how many requirements may be considered and the amount to be allowed for each requirement; and (3) those in which the State agency is specific about some requirements and leaves decisions on others to the local unit or local worker. Even in States where uniform quantity-cost standards for specific requirements are set by the State agency, State supervision must, of course, be exercised to assure uniform application of such standards in localities. Where the specific requirements to be considered and their quantity-cost standards are not prescribed by the State agency, the wide latitude allowed local units inevitably results in inequitable treatment of individuals in similar circumstances.

Appeals and fair hearing.—In its dealings with State agencies the Bureau, during the year, continued to emphasize the importance in a democratic society of ensuring that clients are aware of their right to appeal to the State agency from decisions of the local unit regarding their eligibility or the amount of their assistance payments. It has stressed the importance of assisting clients in presenting their appeals; of holding hearings promptly, at convenient times and at places readily accessible to appellants throughout the State; of conducting hearings so that appellants have full opportunity to participate; of reaching decisions promptly; of notifying the appellants and local agencies of decisions in such manner that they understand the basis for decisions reached; and of ensuring that such decisions are binding on local agencies.

Domiciliary care.—To promote the maximum use of private nonprofit institutions by recipients of assistance who wish domiciliary care, the Bureau held a conference with State public assistance administrators and representatives of national and other private agencies concerned with nonprofit institutions. The groups represented asked the Bureau to take leadership in developing information on the practices of public assistance agencies in paying for institutional care and of the institutions in making their facilities available to needy people. There was general recognition of the need for a service under public or private auspices through which standards of care could be developed, data on the cost of care compiled, and consultation supplied on community planning for more extensive and satisfactory care of old people, including those in institutions.

War emergency programs.—In January 1946, decision was reached by the Board, and concurred in by the War Relocation Authority and the Department of Justice, to recommend discontinuance at the close of the fiscal year of the program for assistance to enemy aliens and others affected by restrictive governmental action. The Board decided, however, to ask Congress to continue the civilian war assistance program for another year; assistance and medical care are still needed by persons who have not yet recovered from the injuries or illnesses incurred during internment and will be needed by many of the thousands for whom repatriation is now being arranged.

Surplus property disposal.—Late in 1945, the Bureau of Public Assistance was asked to perform certain functions relating to the disposition of surplus war property to nonprofit welfare, charitable, scientific, and literary organizations and institutions and volunteer fire companies. Opportunity has been furnished to more than 25,000 of these organizations to obtain surplus war property.

International activities.—The Director of the Bureau of Public Assistance was one of six delegates from the United States to attend the First Inter-American Congress of Social Services held in Santiago, Chile, in September 1945. Professional and technical personnel in many countries are seeking opportunities to exchange information and observe developments outside their own countries in the field of social work. In addition to its guidance to visitors and trainees from other countries, the Bureau developed plans for translating technical materials.

Improving Public Assistance

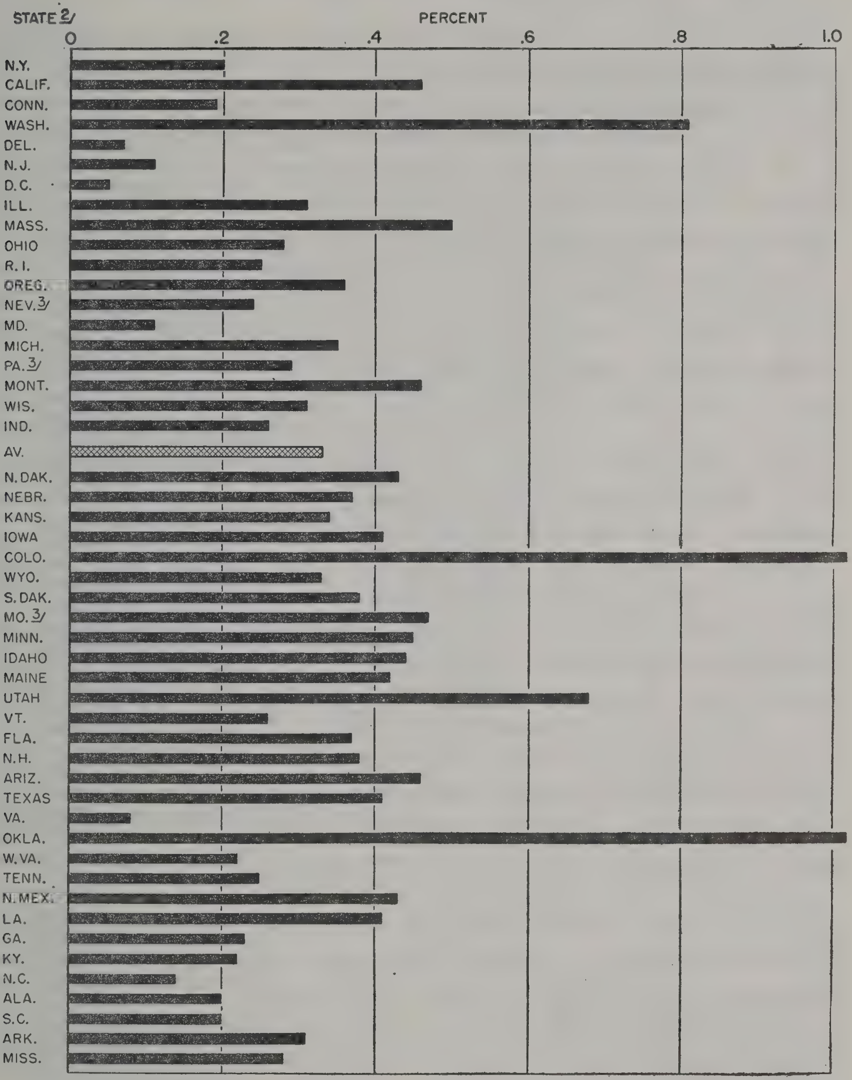
More than 10 years of experience have supplied a basis both for appraising the effectiveness of State public assistance programs operated under the Social Security Act and for clarifying their relationship to the broader program of public welfare and to social insurance. In the judgment of the Board, the time has come both for strengthening the present assistance provisions of the act and for broadening the scope of the grant-in-aid program. In addition to improvements in the provisions for the special types of public assistance, the Board believes that eligibility for assistance under the act should be extended to include any needy person, and not merely the aged and the blind and children who lack normal parental support or care for certain specified reasons. Another step for which there is wide support is Federal sharing in the cost of medical services for persons in need. A further logical extension of the act would be to authorize Federal participation in an expanded program of welfare services.

Financing Public Assistance

Without increase in Federal financial participation, many States will not be able to provide reasonably adequate cash assistance to the aged, the blind, and dependent children, to extend assistance to all needy persons, or to expand the scope of the welfare program to include medical assistance and welfare services. To this end, the Board recommends special Federal aid to low-income States, distribution of State and Federal funds within States on the basis of local need, increase in or removal of the Federal matching maximums on individual payments, and Federal grants for groups of needy persons and for services now dependent solely on State and local support. These recommendations are interrelated. Adoption of any one without the simultaneous provision for the others would prevent full attainment of the objective sought—adequate assistance and equitable treatment of needy individuals throughout the Nation.

Special Federal aid to low-income States.—Several methods have been developed by which Federal financial participation may be varied according to State financial ability. Of them, the most satisfactory, in the judgment of the Board, are those which vary the Federal share from 50 to some higher percentage, depending on the State's per capita income, which reflects its relative financial capacity. Thus, States with per capita income equal to or above the national average would continue to receive about 50 percent of their expenditures, while States with per capita income below the national average would get relatively more. The Federal matching ratio in a low-income State would be

CHART 7.—*State-local expenditures for the three special types of public assistance as percent of income payments, by State, 1945* [1]



[1] 1945 income payments from the *Survey of Current Business*, August 1946.

[2] States ranked by 1945 per capita income.

[3] Includes program administered under State law without Federal participation.

governed by the relation of its per capita income to the average for the Nation.

The present system of Federal grants to States makes no allowance for differences in State financial resources. The Federal Government maintains a uniform standing offer to match, within prescribed limits, the amount of State and local funds expended under the State public assistance programs.[4] The amount of Federal funds that can be granted to a State is therefore limited by the amount expended by the State and its localities.

The diversity in the economic capacities of the States is indicated by their wide differences in per capita income. For the 3 years 1943–45, the average income per person ranged among the States from a low of $527 a year to a high of $1,489, while that for the Nation was $1,108. Eight States had per capita incomes of more than $1,300, in contrast to 8 others where per capita income was below $750. In 31 States, per capita income was below the average for the Nation.

The States with relatively large economic resources can spend substantially more in relation to their needy population than the poorer States. Hence, States with comparatively low economic resources receive relatively small Federal grants even though they are the States where need is greatest. Not only is the incidence of poverty greatest in these States, but their citizens benefit relatively less from the social insurance programs. In 1945–46, the 12 poorest States, with 21 percent of the population of the United States, received only 16 percent of Federal grants for assistance.

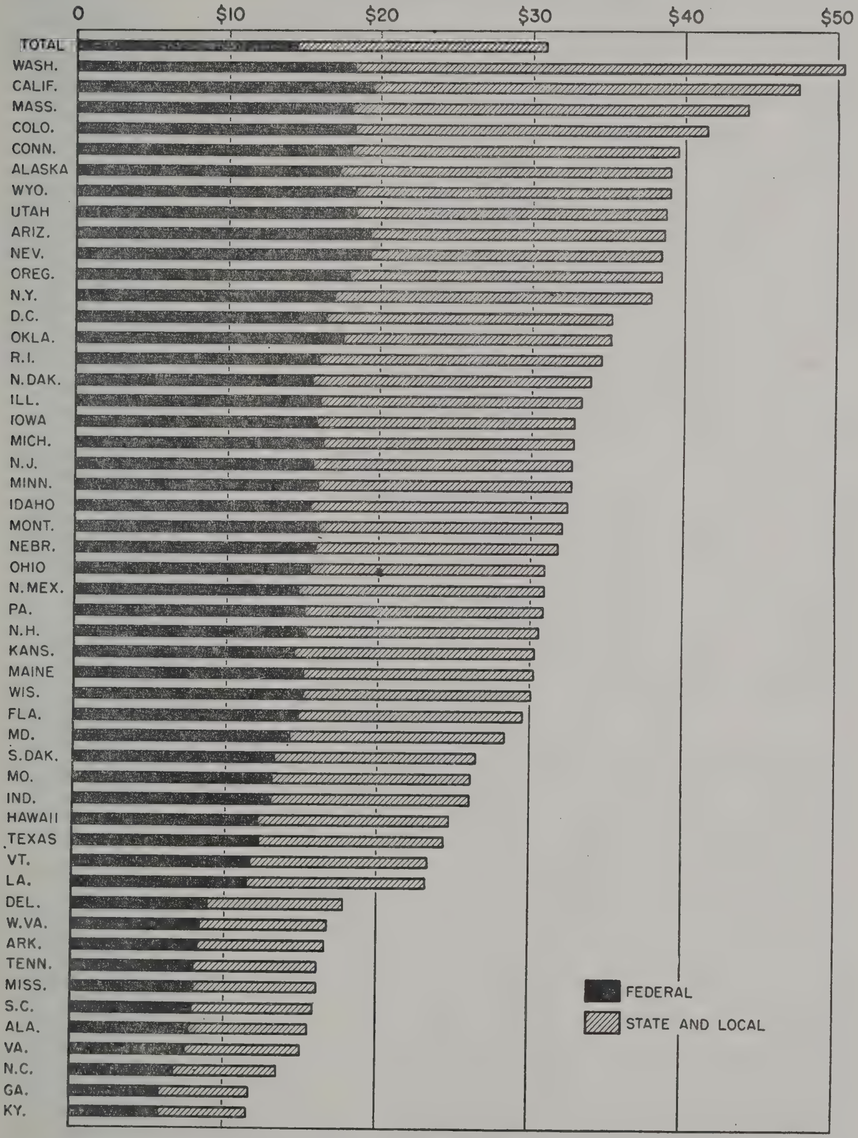
Analysis reveals that in general the States with low per capita income are making more effort to finance public assistance and other public services than the States with relatively greater resources. According to information supplied by the Bureau of the Census, in 1942 less than one-fourth of the States with per capita income above the national average exerted appreciably above-average effort to finance their public services, while two-thirds of the States with per capita income below average exceeded the average in fiscal effort. The ratio of total State and local operating expenses to State income payments is used as the measure of its fiscal effort. When State and local expenditures for the special types of public assistance are related to income payments, similar results are shown. Only 6 of the 19 States with above-average per capita income made more than average effort to finance the special types of public assistance (chart 7). In contrast, nearly two-thirds of the 30 States with per capita income below the average for the Nation made above-average effort to finance these programs.

The inequalities resulting from matching provisions which do not recognize differences in State fiscal ability are revealed for old-age assistance in chart 8, which shows for each State not only the average payment per aged recipient but the average Federal contribution to the average payment. Not only do average payments vary strikingly among States, but the Federal contribution also is very unequal.

---

[4] For Federal legislation enacted after June 30, 1946, see p. 520.

Chart 8.—*Average monthly old-age assistance payment per recipient, by State and source of funds, December 1945*



When a State has too little money to provide assistance on a reasonably adequate basis, the people in need are the sufferers. A State may refuse to accept new applicants who are eligible until some recipients die or leave the rolls for other reasons. Payments to persons on the rolls may fall far below the amount they need, as determined under the State's own standards, and those standards themselves may fall far short of reflecting what it costs to live at a healthful level. Some States have met as little as 40 or 50 percent of the amounts they estimated were necessary to meet the requirements of needy people. Other States have ignored all but a few requirements, since there was no possibility of providing assistance sufficient to meet need realistically. In such circumstances, freedom from want cannot be realized by the needy people of a State.

State distribution of Federal and State funds.—The Social Security Act contains several provisions which indicate that Congress intended States to afford equitable treatment to needy individuals throughout the State. Among these provisions are the requirements that a State plan for the administration of assistance be developed, that the State contribute financial support to the program, that the plan be in effect in all local subdivisions of the State and, if administered by them, be mandatory upon them, and that administration be "efficient."

Many States have not yet fully achieved the objective of equitable treatment of needy persons throughout the State. Failure of States to apportion Federal and State funds in accordance with relative need of the localities has contributed significantly to wide variations in the amounts of assistance given to recipients in different parts of a State. The poorest counties have relatively large numbers of persons in need. Furthermore, they are often the localities with the least protection under the social insurance programs. Yet they can raise relatively small amounts of money to meet that need. In some States, the average payment in the highest county in 1945 was from two to three times that in the lowest county. These ranges exceed what normally would be expected from known facts on differences in need, cost of living, and standards of living.

Equitable distribution of Federal and State funds is often not achieved, even in States where the localities do not share in financing assistance. State and Federal funds usually flow into a locality as cases are approved for assistance, regardless of variation in local administrative practice. When State funds are insufficient, local units are instructed to meet a specified percentage of the total amount found to be needed in each case; or, as an alternative, each local unit is told how much it can spend. One State using the latter procedure found that the assigned quotas kept some localities from meeting more than 40 or 50 percent of need as determined in each case, while others met 75 or 80 percent. Another consequence of inequitable apportionment may be the accumulation of waiting lists in some counties while in other counties eligible applicants get aid without delay.

The Social Security Board believes that it is the intent of the Social Security Act that States shall apportion Federal and State funds to localities in relation to their need for funds. This objective involves more than an adequate allocation formula. Solution of the problem requires uniform application procedures in all localities and the development of specific State standards for determining eligibility and the amount of assistance. Only when administration is uniform can the need for funds be uniformly measured.

Federal matching maximums for individual payments.—With mounting prices, the limits in the Social Security Act on the amounts of individual monthly payments subject to Federal matching[5] increasingly handicap States in supplying needy people with enough money to purchase necessities.

The limits on Federal matching constitute an especially critical problem in aid to dependent children because the amounts are below the minimum need of a very large proportion of the families receiving aid. In recognition of this fact, several States have set higher maximums and more than half the States have no limits on payments other than the extent of need as determined by the public assistance agency. At the end of 1945, more than half of all payments of aid to dependent children were above the Federal matching maximums of $18 for the first child in a family and $12 for each child beyond the first. Because the State or the State and its localities must pay all the amount above the Federal maximums, the Federal share of assistance costs for aid to dependent children in 1945–46 was less than half in 35 States, less than one-third in 25 States, and less than one-fourth in 8 States. A considerable number of States, however, are unable or unwilling to make payments that are not fully matchable.

In old-age assistance and aid to the blind, also, the Federal matching maximums often result in payments too small to provide the goods and services necessary for even minimum comfort and well-being. At the end of 1945, some payments of old-age assistance exceeded the $40 Federal ceiling in 26 States; 23 States made payments above the ceiling for aid to the blind.

The Social Security Board strongly urges the removal of maximums for aid to dependent children. If Congress should wish to retain a matching maximum, however, the Board believes that specific provision should be made not only for the children but also for the mother or other relative caring for the children and for the expenses of maintaining the home. For old-age assistance and aid to the blind, the Board believes that the Federal matching maximums should either be eliminated or raised so that the assistance needy people get may be reasonably related to what it costs to live.

Federal participation in administrative costs.—The Board believes that expenditures for administration of State plans, like expenditures for assistance payments, should be subject to a special Federal aid formula to equalize the amount of funds available and thus to encourage better standards of administration where insufficient funds have been a deterring factor.

---

[5] For Federal legislation enacted after June 30, 1946, see p. 520.

Assistance for Any Needy Person

The Social Security Board believes that provision against want is a basic public responsibility which should be shared by Federal and State Governments for all needy persons, not merely for selected groups. The Board also believes that in a free-enterprise society, dependent on a mobile labor supply, restrictive eligibility requirements, such as specified periods of State or local residence or citizenship, present unnecessary obstacles to the prompt receipt of assistance and to the efficient administration of public aid.

Federal funds for general assistance.—The Board recommends extension of Federal grants-in-aid to general assistance. Only by such extension can the gaps in the public assistance provisions be closed and minimum economic security assured to any needy person wherever he may live and whatever the cause of his need.

In periods of high employment, the great majority of persons receiving general assistance are in need because of physical or mental handicaps, temporary or chronic illness, unsuitability for employment because of age or home responsibility, or temporary illness of the breadwinner. Such persons are not so different from the aged, the blind, the dependent children as to justify a separate national policy in dealing with them. Under less favorable employment conditions, employable persons sometimes will need aid. Even when jobs are plentiful, work may be lacking in some communities. Persons out of work are not always able to move in search of jobs. Unemployment insurance, of course, provides income for the majority of wage earners when they are unemployed. But not all workers are covered by unemployment insurance, and even those who are covered may need general assistance if they exhaust their benefits or if they need help during the waiting period or to supplement inadequate benefits. Furthermore, persons who have protection under unemployment insurance are generally ineligible for benefits if they are unable to work because of illness. A comprehensive public assistance program, flexible enough to meet need as it arises, must cover employable persons as well as persons not normally in the labor force. If employment remains at a reasonably high level and unemployment insurance is effective in tiding workers over gaps between jobs, the number of employable persons who require general assistance will be negligible, as it has been in recent years. Nevertheless, aid should be available to the needy unemployed if, despite other measures, they require cash or medical assistance.

In many parts of the country, State financial participation in general assistance is slight or wholly lacking. In 15 States the entire financial burden for general assistance rests on the localities, and in 15 additional States the localities bear more than half the cost. Except in large metropolitan areas and in wealthy residential communities, the narrowness of the revenue sources available to localities tends sharply to limit the funds they can raise for general assistance. Furthermore, in some States that contribute State revenues, the State's contribution is conditioned by the amounts the localities can raise.

In many of the 10,000 localities administering general assistance throughout the Nation, by no means all needy persons are eligible for general assistance. Because of legal or administrative restrictions, general assistance is often limited to persons who have legal settlement or meet other arbitrary qualifications.

During even the war years, when need for general assistance was at the lowest level in more than a decade, many States either were unable or failed to make reasonably adequate provision for the residual groups of needy persons. The Social Security Board is therefore convinced that only if general assistance becomes a part of a strong and comprehensive Federal-State assistance program will freedom from want be assured needy persons throughout the Nation in all circumstances.

Definition of a dependent child.—Despite widespread need among families with children, the Social Security Act restricts Federal responsibility for aid to dependent children to only certain needy children living in family homes. The present definition of a dependent child limits Federal participation in assistance to needy children who are living with a parent or other specified relative and are deprived of parental support or care because of the death, continued absence from the home, or physical or mental incapacity of a parent. To be eligible for aid with Federal matching funds, moreover, the child must be under age 16 or, if aged 16 or 17, must be attending school regularly.

Some children have no relative among those specified in the act who can care for them, though they could receive care in the family home of a more distant relative. Many children suffer deprivation for reasons other than those enumerated in the act—for example, when a parent is unemployed or has low earnings because of illness not considered physical or mental incapacity. Some children aged 16 or 17 can neither work nor go to school; they may be too ill or handicapped to attend school, or suitable schools may not exist in the vicinity.

The Board is of the opinion that the Federal Government should participate in assistance to a parent or other person assuming responsibility for the child if the child is living in a family home and is needy for any reason whatsoever. Extension of the definition of dependent child would appear desirable—though far less urgent—even if the act were amended to authorize Federal grants-in-aid for general assistance. The present definition not only bars some needy children from help, but also presents difficult and unnecessary administrative problems.

Residence requirements.—Residence requirements stand in the way of granting assistance to otherwise eligible needy persons. Such requirements also are costly and time-consuming to administer, since the residence of every applicant must be investigated, though the number of nonresidents is relatively small. The Board believes that State residence requirements as a condition of eligibility for assistance should be abolished.

The act now provides that a State plan for old-age assistance or aid to the blind, to be approved, may not require residence in the State for more than 5 of the 9 years immediately preceding application and 1 year continuously before filing the application. Though the Federal act merely establishes the maximum residence requirement which a State may impose, many States have adopted substantially this provision as their minimum requirement. The maximum period of residence which may be required for aid to dependent children is shorter—the residence of the child in the State for a year immediately preceding the application, or birth in the State within a year if the mother resided in the State for a year preceding the birth. In general assistance, many States go beyond the requirement of State residence and impose a requirement of local settlement to qualify for aid.

The trend in State legislation is toward minimizing or eliminating State residence requirements. For old-age assistance, 3 States now have no residence requirement, and 17 require residence for 1, 2, or 3 years. For aid to the blind, no residence is required in 4 States, 18 States require from 1 to 3 years of residence, and 21 States waive their requirement for persons who were residents of the State when they became blind. For aid to dependent children, 6 States require no period of residence.

In recent years, war and reconversion have accelerated the mobility of population characteristic of our national development. Since the beginning of World War II, 8 million or more civilians have moved across State lines. Many of these people have lost their residence in the place from which they came without gaining it elsewhere. It is unrealistic to assume that all the people who have moved will return to the communities from which they came. Continued mobility is likely to prove indispensable to the achievement of high and stable levels of employment. Individuals in a free-enterprise society, moving to take advantage of opportunities, should not forfeit the right to assistance if they become needy.

Citizenship requirements.—While the Social Security Act does not require citizenship as a condition of eligibility for public assistance toward which Federal funds may be used, it permits the States to require citizenship. Twenty-four States make citizenship a condition of eligibility for old-age assistance and seven for aid to the blind. Only one State requires that children must be citizens to be eligible for aid to dependent children. In many States, the effect of excluding needy noncitizens from the special types of public assistance has been to place the burden of their support on general assistance, financed in large part from local funds. The Board is of the opinion that assistance should be available to noncitizens if they are needy and otherwise eligible.

Property restrictions.—The Board believes Congress should clarify its intent concerning the assistance agency's treatment of the property of the applicant or recipient. Many States now require needy persons, as a condition of eligibility for assistance, to transfer title or control of property they own to the State or locality. Since the assistance payment itself is given to the recipient for his unrestricted use, a recipient's other property should be subject to the same treatment, in the judgment of the Board. This situation would not preclude an agency from claiming from the estate of a deceased recipient recovery of assistance formerly paid. The Board believes, however, that such claims should not be enforced during the lifetime of the recipient and surviving spouse or during the minority of surviving children.

Extension of Federal aid to the Virgin Islands and Puerto Rico.—The Social Security Board believes that the public assistance provisions of the Social Security Act should be extended to Puerto Rico and the Virgin Islands to assist them in aiding their needy aged and blind persons and dependent children. If the present public assistance provisions of the act are broadened to include general assistance, medical assistance, and welfare services, Federal aid for these purposes, also, should be available to the island possessions. Both Puerto Rico and the Virgin Islands have enacted legislation and established plans of operation that would enable them quickly to qualify for Federal grants if the act were amended to include them. Precedent already exists for grants for welfare purposes to these possessions. Both now receive grants for public health services, and Puerto Rico receives grants for maternal and child welfare services.[6]

Scope of Assistance and Service

So that need may be met fully and in a manner appropriate to individual circumstances, the Social Security Board believes that Federal participation should be authorized in medical assistance, including the care of needy persons in medical institutions, and in welfare services, including foster-care services for children. In addition, the Board advocates modification of the provisions of the act relating to the determination of need to assure that need shall be established on a more nearly objective and equitable basis.

---

[6] For Federal legislation enacted after June 30, 1946, see p. 518.

Medical care.—It is well known that dependency often stems from disability. Unfortunately, the low level of subsistence afforded recipients of public assistance, combined with the inadequacy of medical care available to them, often prolongs disability unnecessarily and even begets further sickness.

The three groups of needy persons at present eligible for assistance under the Social Security Act are likely to have especially heavy medical needs since, by definition, they are old or blind or are children who, in considerable part, have been deprived of parental support or care by the death or disability of one or both parents. Among recipients of general assistance, illness or disablement of a person in the home has in recent years been the largest single cause of dependency.

Many public assistance agencies have made vigorous efforts to provide medical care for their recipients of assistance, but have been handicapped in doing so by the limitations of the Social Security Act. Federal participation is authorized only in unrestricted money payments to recipients and only up to specified monthly amounts. Though an amount for medical care may be included in the money payment, the limits on Federal matching often afford slight opportunity for such inclusion with Federal help. Increase or elimination of the Federal ceilings would stimulate more ample provision of medical care. In some States with relatively large fiscal resources, medical needs of recipients have been met by removing or waiving State maximums on money payments for persons requiring medical care.

The States now use various methods to provide medical services to recipients. Some agencies, entirely at State-local expense, increase the money payment beyond the matching limits set in the Federal act. Some pay doctors, dentists, nurses, druggists, hospitals, and clinics directly out of State-local funds, and a few, especially in isolated communities, employ physicians to give care. It is not unusual for a local agency to use all these methods. The Board believes that it should be possible for public assistance agencies to use any of these approaches with Federal financial help, suiting the method to the individual situation.

The Social Security Board believes that Federal participation should also be authorized through public assistance in the cost of care of needy persons with chronic ailments who choose to live in public or private medical institutions or hospitals, other than mental hospitals or tuberculosis sanatoria. Now the Federal Government shares in cash assistance to needy individuals living in private institutions, but it cannot participate either in cash assistance to or in payment for medical care of people living in public institutions. Public assistance agencies should be able to choose whichever method of payment seems best, since many people who are ill enough to need prolonged medical care in an institution are unable readily to manage their financial problems.

Experience during the past 11 years has shown that private nonprofit institutions and commercial nursing and boarding homes are too few and too unevenly distributed to provide for the persons requiring long-time resident medical care. Furthermore, many commercial homes and some nonprofit institutions supply care inferior to that available in public hospitals or medical institutions. It would seem desirable to make use of public facilities, at the same time requiring them to establish and maintain suitable standards. Such a requirement should avoid the danger of return to the old-time almshouse and should have the positive advantage of lessening some no less serious ills that have developed with the growth of commercial boarding and nursing homes.

Elsewhere in this report the Board recommends establishment of medical care insurance to meet costs of medical care of workers and members of their families. The sharing of risks and the prepayment of costs on a fixed basis would make it possible for people who are ordinarily self-supporting to meet their bills for medical care. If a system of medical care insurance is established, it should be possible for assistance agencies to pay contributions to the insurance fund for needy persons so that they, too, could get medical services in the same manner as other persons in the community. Medical care insurance would, of course, greatly reduce the need for medical assistance and doubtless also for maintenance.

Welfare services.—All public assistance agencies are providing social services to individuals and families in connection with the administration of old-age assistance, aid to the blind, aid to dependent children, and general assistance. The determination of the need of applicants and the provision of assistance to recipients, in themselves constitute services. While performing these services, assistance agencies are sometimes requested to provide other help, such as service to facilitate fuller use of community resources and counseling or other help on individual problems. As a part of administrative expense, Federal matching is available in the cost of services provided to applicants for and recipients of the three special types of aid. If the scope of the public assistance program is broadened to include medical assistance and general assistance, matching Federal funds will be available for the cost of a wider service program. The Social Security Board believes, however, that the Federal Government should participate in the cost of services not only to persons applying for or getting any type of financial aid, but also to persons who do not need or request financial aid but request help which the welfare department can appropriately give.

Public welfare agencies generally provide some specialized services to children, including child welfare services and foster-home care. Since 1936 the Children's Bureau has made grants to States under the Social Security Act for child welfare services, especially in predominantly rural areas or areas of special need. Under the stimulus of these grants, the scope of child welfare services has broadened and their quality improved. The Social Security Board believes these services should be further strengthened and extended to all areas of a State.

The Board deems it particularly important that the Federal Government participate, under appropriate auspices, in the cost of foster-family care for children who have no parent able or willing to care for them. Such service entails planning for the child's needs as an integral whole. To carry out such planning, the public welfare agency must assume responsibility for home-finding, placement of the child, supervision of the foster parent and the child, work with parents, and payment to the foster parent for the support or care he supplies. A necessary accompaniment of foster-family care is the licensing of foster-family homes.

The Social Security Board favors participation by the Federal Government in all types of welfare services administered by the staff of the public welfare agency to help families and individuals become self-supporting, to make fuller use of community resources, or to solve individual problems in family or community adjustments. Federal sharing in the cost of all appropriate welfare services included in a State plan would result in time in a strong and comprehensive system of welfare services flexible enough to meet the changing needs of a dynamic society. Though it would be desirable at the beginning to establish demonstration projects in limited areas, eventually welfare services should be available throughout the State. If the Federal Government should participate in a broad program of welfare services, it would be important to require States to establish and maintain appropriate standards for such services. Training of personnel should go hand in hand with the development of a comprehensive program of welfare services.

Determination of need.—No aspect of public assistance administration is so fundamental or so far-reaching in its effect on the life of a person in want as the agency's determination of his need and of the amount of assistance he is to get. Public assistance is intended to supplement the recipient's meager resources, if any, so that he may obtain for himself the necessities of life. The amount of money an individual gets is most commonly determined by the use of the budgetary method. State standards are ordinarily established to determine how much is to be included for some or all of the goods and services deemed necessary for the recipient. Similarly, State instructions are generally provided to determine how far the individual's resources will go in providing such goods and services. The difference represents the amount of the assistance payment, unless—as is all too often the case—it must be scaled down because of a maximum on the amount of an individual payment or because of stringency of funds. The State standards for determining requirements and considering resources vary enormously from State to State both in content and in the degree of uniformity with which they are applied in the local units.

The Board believes that all States should define the content and level of living to be afforded needy persons in given circumstances and should develop effective standards for measuring the cost. Such standards should be uniformly applied throughout the State so that persons in similar circumstances will be treated similarly. The actual amount allowed in each locality for persons in similar circumstances would not necessarily be the same, since the cost of goods and services might vary from place to place.

The Board believes that it is imperative that standards for considering the resources of an individual be made as objective as possible, so that they may be uniformly and fairly applied. Furthermore, resources should be considered only when they are actually available to the recipient to meet a part of his need. Because some States, in determining need, assume that income from legally responsible relatives is always available to recipients, they reduce assistance payments by the amounts they expect the relatives to contribute, sometimes without determining whether the contributions are actually made. Such practices often result in hardship to needy persons and disruption of family ties. The Board believes that resources should be considered only if they are actually available to the needy person. Such a provision would not mean that relatives would not be expected to help when they can, but rather that the needy person would not suffer when relatives cannot help or fail to do so.

Administrative Organization

The Social Security Board believes that a strong Nation-wide system of public welfare can be achieved only through unified administration and financing. The objective of unification is a complete and flexible program of assistance and welfare services so integrated and administered as to enable States to grant assistance or service equitably to each person in need of help, regardless of the reason for his need. This objective would be furthered by a requirement that one State agency be responsible for administering or supervising the administration of all programs of assistance and welfare services in which the Federal Government participates. To assure unification at the local level, the States might also be required to provide one local agency or branch office of the State agency to administer all plans.

A unified system of public welfare would not entail discontinuance of the assistance categories unless a State so desired. Each State could decide for itself whether or not to maintain the present categories, to add new ones on some rational basis, or to abolish all categorical lines, continuing, however, to recognize the special needs of particular groups, such as blind and other handicapped persons, school children, disabled persons, and persons living in institutions. In addition, a State could integrate its categorical and special service programs.

GENERAL ADMINISTRATION

The Social Security Board

The Social Security Act of 1935 provided for the appointment of a Board of three members, of whom not more than two were to be members of the same political party. The duties of the Board include making determinations with respect to organization and administration, establishing substantive policy, making regulatory and precedent decisions that implement or interpret the terms of the act; approving State public assistance plans and unemployment insurance laws that comply with the act; holding quasi-judicial hearings concerning compliance questions; certifying grants to States for public assistance payments and administration and for administering State unemployment insurance laws; and certifying the conformity of State unemployment insurance laws to Federal statute for tax-credit purposes. The act also made the Board responsible for conducting studies and making recommendations as to the most effective methods of providing economic security through social insurance. Under title V of the Servicemen's Readjustment Act of 1944, the Board has participated with the Administrator of Veterans Affairs in certifying amounts for administrative expenses of States in connection with their services under the veterans' readjustment allowance program. Transfer of the functions to the Federal Security Agency and Federal Security Administrator and abolition of the three-member Board were proposed by President Truman in Reorganization Plan No. 2, issued in May 1946, to become effective July 16, 1946, in the absence of negative action by Congress.[1]

During the fiscal year 1945–46, Arthur J. Altmeyer, of Wisconsin, one of the Board's three original members, continued as Chairman, an office to which he was appointed on February 19, 1937, to succeed the first Chairman, John G. Winant. George E. Bigge, of Rhode Island, has been a Board member since his appointment on August 6, 1937. Ellen S. Woodward, of Mississippi, has continued in office since December 30, 1938.

During their terms of office, members of the Board have represented the United States in various international projects to further the development of social security or to meet particular wartime problems.

---

[1] For a summary account of these and other functional changes relating to the Federal Security Agency as of that date, see *Social Security Bulletin,* August 1946, pp. 2–3.

In 1939, Mr. Altmeyer served as Chairman of the United States Government Delegation to the Regional Conference of American States Members of the International Labor Organization at Havana, Cuba. In 1942, he was Chairman of the American Delegation at the First Inter-American Conference on Social Security at Santiago, Chile. In 1945, he was Chairman of the American Delegation at the second meeting of the Inter-American Committee on Social Security at Mexico City, where he was reelected to the chairmanship of the Permanent Inter-American Committee on Social Security.

As social insurance consultant of the Office of Military Government, Mr. Bigge served in Germany during part of the fiscal year on the Quadripartite Committee with representatives of the English, French, and Soviet Governments who studied the German social insurance system with a view to developing general standards to be observed by the German Government or Governments in reorganizing their system.

Mrs. Woodward, by appointment of the State Department with approval of the President, has served as Advisor on Welfare to the United States Council Member at all Council sessions of the United Nations Relief and Rehabilitation Administration and, between sessions, as the United States Member of the Standing Technical Committee on Welfare. She also served as the United States Member of the Subcommittee on Welfare for the Far East and as chairman of a subcommittee to draft a statement of policy on the distribution of supplies to resourceless persons; and worked with the Members from France and the Soviet Union on the Studies Subcommittee which, in conjunction with the staff of the Welfare Division of UNRRA, was responsible for preparing a report on methods of organizing emergency welfare services.

A project developed by the Social Security Board during the year offers training grants during the fiscal year 1946–47 to individuals from three American republics—Chile, Mexico, and Uruguay. The profferred grants are under the auspices of the Interdepartmental Committee on Scientific and Cultural Cooperation of the Department of State and are to be made from funds allocated by the State Department. Two trainees from each of these three republics whose professional interest is in the field of social security and who are in the employ of their governments will have 4 months of training in the bureaus and offices of the Board and in State unemployment insurance and public assistance agencies.

The Board has cooperated with the Interdepartmental Committee on Scientific and Cultural Cooperation in developing a somewhat more comprehensive program for the fiscal year 1947–48, which would provide for two trainees from each of three other American republics interested in social security experience in the United States and in utilizing this experience in the administration of their own social security programs. Detail of Board employees to three American republics is also contemplated, to bring to those countries increased knowledge of the social security programs in operation in this country.

The Executive Director

Responsibility for administrative and executive action has been vested in the Executive Director, who is responsible for the general supervision and coordination of activities of all bureaus and offices, for coordination of Federal-State relations under the Social Security Act, and for immediate supervision and direction of the 13 regional offices of the Board. Oscar M. Powell, of Texas, has been the Executive Director since November 1, 1938.

Bureaus and Offices

Most of the functions of the Board relating to the three chief programs for which it is responsible are carried on by the Bureaus of Old-Age and Survivors Insurance, Employment Security, and Public Assistance. Functions relating to two or more programs or to the more general aspects of social security are assigned, in general, to service bureaus and offices.

The Bureau of Research and Statistics conducts the basic studies necessary to analyze aspects of social security which are outside the immediate scope of any other bureau and reviews and integrates the statistical and analytical work of the program bureaus. Its activities are concentrated on the over-all financial and economic aspects of the Board's programs; the relation of these programs to other social security and related measures; and development of findings and recommendations on the most effective methods of providing social security through social insurance, with particular reference to unmet needs for protection during illness and disability.

The Office of the Actuary advises the Board and its staff on technical and long-range factors involved in determining costs and considering proposals for social security.

The Bureau of Accounts and Audits maintains the Board's system of accounts covering all funds budgeted, appropriated, collected, or disbursed. Its regional staff conducts field audits of State public assistance agencies and of administrative expenditures of State employment security agencies; furnishes constructive accounting services to State public assistance agencies; and reviews the fiscal aspects of State public assistance plans and State requests for Federal funds under such plans.

Informational activities for all programs are centered in the Informational Service, which seeks, in the interest of efficient and economical administration, to keep people informed of their rights and obligations under Federal old-age and survivors insurance and to aid State agencies in developing similar understanding of their unemployment insurance and public assistance programs.

The Office of Appeals Council, which is independent of the Bureau of Old-Age and Survivors Insurance, hears and reviews appeals on claims for wage credits, monthly benefits, and lump-sum payments under the Federal system of old-age and survivors insurance.

The Office of the Executive Director maintains the budgetary, personnel, business management, library, training, and publications services of the Board.

Regional and Field Organization

In the interests of efficient and individualized administration, operations of the Social Security Board have been decentralized to provide local and regional services to workers covered by old-age and survivors insurance, to claimants for benefits under that program, and to State agencies administering unemployment insurance and public assistance under laws or plans approved by the Board as in conformity with the Social Security Act. The United States and Territories have been divided into 13 regions. Staff in each region is headed by a regional director, who is directly responsible to the Executive Director for the efficient administration of the Board's programs within the region, including satisfactory Federal-State relationships and public relations activities. Except in the two Territories, the regional personnel include representatives of the Board's program and service bureaus and offices and staff to furnish personnel and business management services to the regional office and field offices of the Bureau of Old-Age and Survivors Insurance. The representatives of that Bureau supervise the activities of the field offices concerned with operations of that program. Representatives of the Bureaus of Employment Security and Public Assistance advise and assist State agencies on matters relating to those programs. Informational Service representatives, regional auditors, regional attorneys of the Office of General Counsel of the Federal Security Agency, and personnel representatives of the State Technical Advisory Service on merit-system administration provide the appropriate specialized assistance to regional directors, representatives of the program bureaus, and State agencies.

Merit Systems of Personnel Administration in the States

In accordance with the requirements of the Social Security Act, as amended, and in order to promote the most efficient administration of State unemployment insurance and public assistance programs, personnel in these programs are selected, acquire tenure in office, and have the prospect of promotion and a career service under merit-system principles. Under the act, the Board must determine the administrative effectiveness of these merit-system and other personnel plans. The State Technical Advisory Service in the Office of the Executive Director reviews the methods used by the States and gives assistance in the development of methods that will assure acceptable merit-system practice.

Although the framework of merit-system administration remained sound during the war period, most States found it necessary to modify the standards they had set for peacetime operation, especially in highly industrialized areas, where war demands on personnel were most acute. For nearly all State agencies, labor-market stringencies continued through the year 1945–46. Typical problems of staffing, for at least some classes of positions, resulted in lowered minimum qualifications for newly hired personnel and for promotion of persons already in the agency; appointment of war-service employees without examination; and retention of provisional employees beyond the normally limited period. The ground work has been laid, however, for restoring peacetime standards. Surveys of classification plans are being projected in the light of organizational and staff changes. Studies of salary scales in relation to the general upward trend of wages are also in prospect. As rapidly as conditions favorable to competition permit, the selection process, which includes formal competitive examinations, is being restored. War-duration and provisional employees will be subjected to the selection process for permanent status in competition with veterans and the general public.

Personnel

The Board as of June 30, 1946, had a staff of 11,261—5,548 in the departmental and 5,713 in the regional, field, and area offices. Three-fourths of the total increase of 632 since June 30, 1945, were added to the field organization of the Bureau of Old-Age and Survivors Insurance to keep pace with the increase in the claims load. The end of hostilities also made it necessary to fill all existing vacancies in the Bureau of Employment Security immediately and employ additional personnel. During the year, 1,757 ex-servicemen and women claimed their reemployment rights and were restored to duty. As of June 1946, 1,359 Board employees were on military leave and some 2,400 who had transferred to other agencies or private industry held reemployment rights.

To achieve economies in the use of manpower and materials, attempts were intensified to simplify operations, eliminate nonessential steps, and devise improved methods of work. Because of the progressive development of the program, however, the staff was able to keep abreast of the increase in the total volume of work only through intensive training of new and inexperienced personnel, job rotations to permit concentration of staff on activities with recurrent peaks in work load, and curtailment or postponement of certain operations. Many services to State agencies and to the public which were eliminated or curtailed during the war emergency must now be resumed if fully effective operation is to be assured.

Appropriations and Expenditures

Regular and deficiency appropriations to the Board for the fiscal year ended June 30, 1946, amounted to $529 million, of which $499 million or 94 percent was for grants to States for unemployment insurance administration and public assistance, and $30 million for administrative expenses of the Board. The total appropriation was greater by $58 million than the amount appropriated for the preceding fiscal year. Of this difference, nearly $55 million represented increases in appropriations for grants to States for public assistance.

Of the $30 million expended for the Board's administration during the fiscal year, more than nine-tenths was reimbursed to the general fund of the Treasury from the old-age and survivors insurance trust fund as administrative costs chargeable to that program. The rise of about $3.6 million in the Board's total expenditure for salaries was due largely to the addition of field staff required to handle the increase in claims load of the Bureau of Old-Age and Survivors Insurance and to salary increases under the Federal Employees Pay Act of 1945.

SOCIAL SECURITY LEGISLATION ENACTED AFTER JUNE 1946

After the close of the fiscal year 1945–46, with which this report is concerned, legislation was enacted amending the Social Security Act and related measures and affecting other areas in the field of social security. The main provisions of the various laws are outlined in the following summary.

Social Security Act Amendments of 1946

H. R. 7037, which was signed by the President on August 10 (Public Law 719, 79th Cong., 2d sess.), amends titles I, II, III, IV, V, X, and XI of the Social Security Act, adds a new title XIII, and amends the Internal Revenue Code (the Federal Insurance Contributions Act and the Federal Unemployment Tax Act). The five titles of the amendments are as follows:

Title I—Social Security Taxes.—The Federal Insurance Contributions Act is amended by freezing employer and employee contribution rates for old-age and survivors insurance at 1 percent each for the year 1947. The existing statutory provisions for an increase in rates to 2½ percent each in 1948, and to 3 percent each in 1949 and thereafter, are retained.

Title II—Benefits in Case of Deceased World War II Veterans.—The Federal old-age and survivors insurance provisions (title II of the Social Security Act) are amended to provide survivor benefits for survivors of certain World War II veterans who die or have died within 3 years after discharge from military service. In general, the new provisions guarantee survivors of veterans the same benefit rights they would have if the veteran had died fully insured under the program. In computing the amount of the survivor benefit, the veteran is deemed to have had average wages of not less than $160 a month, and he is deemed, for purposes of the 1-percent annual increment, to have earned at least $200 in wages for each calendar year in which he had 30 days of military service after September 16, 1940. These benefits will not be paid for any month for which the Veterans Administration has determined that any compensation or pension is payable by reason of the death of the veteran under any law administered by that agency, or if the serviceman dies in active service or is discharged from the service more than 4 years and 1 day after the termination of the war.

Title III—Unemployment Compensation for Maritime Workers.—This title makes possible permanent coverage of private maritime employment under State unemployment insurance laws and provides temporary protection for workers whose maritime employment has been technically Federal employment. The Federal Unemployment Tax Act is amended as of July 1, 1946, to include private maritime employment, and the States are authorized, under specified conditions, to cover such maritime employment under their unemployment insurance laws. In a new title to the Social Security Act, Title XIII—Reconversion Unemployment Benefits for Seamen, special reconversion unemployment benefits for a limited period are provided for seamen with Federal maritime service on vessels operated by the War Shipping Administration. The new title is to be administered by the Federal Security Administrator, who is authorized to enter into agreements whereby a State unemployment insurance agency, acting as agent of the United States, will make the payments for the designated period under the provisions of its State law. The additional costs for these temporary benefits will be borne by the Federal Government. Though the act provides that the reconversion period, during which benefits may accrue, is to begin with the fifth Sunday after enactment of the law and end June 30, 1949, Congress did not appropriate funds for this purpose and the act provides that no benefits can be paid for unemployment occurring before the date funds are made available therefor.

Title IV—Technical and Miscellaneous Provisions.—Provisions affecting various programs are grouped under title IV.

Maternal and child health services, services for crippled children, and child welfare services (title V of the Social Security Act) are extended to the Virgin Islands as of January 1, 1947. The amendments also increase as of July 1, 1946, the authorization for grants to States for these three programs from $11.2 million annually to $22.0 million and authorize an increase in the amount for administrative expenses.

States that have collected contributions from employees under State unemployment insurance laws are permitted to use the money to finance disability insurance benefits. Of the nine States which have at some time collected employee contributions, one is already paying cash benefits for disability and one has enacted such legislation.

Other sections of title IV are designed to correct minor flaws, inequities, and anomalies that have come to light in the operation of old-age and survivors insurance. The most important changes are:

1. Liberalization of eligibility requirements for parent's benefits by changing the requirement that a parent must have been "wholly"

dependent on the deceased wage earner to "chiefly" dependent, and by permitting a dependent parent to qualify when the wage earner's surviving widow or child is neither immediately nor potentially eligible for monthly benefits. These provisions are effective for claims filed after 1946.

2. Revision of eligibility requirements for child's benefits (a) to permit the child to continue receiving benefits on the parent's wage record if, after the parent's death, he is adopted by a stepparent, grandparent, aunt, or uncle, but (b) to bar the child from benefits on the wage record of his primary beneficiary father if the child was living with and chiefly supported by a stepfather and was not receiving support from his father.

3. Repeal of the requirement that children aged 16 and 17 must attend school as a condition for receiving a child's benefit.

4. Liberalization, for claims filed after 1946, of the definition of "wife" and "child" to include a stepchild, adopted child, or a wife whose relationship had continued for the 36 months immediately before application for supplementary benefits was filed or, in the case of child's survivor benefits, 12 months before the wage earner died.

5. Authorization to compute the monthly benefit as of the time when, all other conditions of eligibility being met, the highest benefit amount would result, and liberalization of the terms under which benefits are recomputed to include wages received after the first computation.

6. Liberalization of the definition of "currently insured individual," for claims filed after 1946, to include wages in the quarter in which the wage earner dies.

7. Liberalization of the provision for retroactive payment for as much as 3 months by extending it to include the primary beneficiary, for claims filed after 1946.

8. Revision of the definition of the term "wages" to simplify the Administration's recordkeeping, the employer's reporting, and the payment of refunds of contributions to employees who receive wages of over $3,000 from more than one employer during a year.

9. Provision for allocating 1937 wages, which were reported semiannually, on a quarterly basis.

10. Elimination, for deaths occurring after 1946, of lump-sum death payments to a spouse who is not living with the worker at the time of his death and to children and parents (unless they have paid the worker's funeral expenses), and elimination, after February 10, 1947, of lump-sum payments under the 1935 provisions with respect to the wage records of persons who died before 1940.

11. Making the 2-year limitation on filing claims for lump-sum payments run from August 10, 1946, in the case of insured workers

who died outside the United States after December 6, 1941, and before August 10, 1946.

Title V—State Grants for Old-Age Assistance, Aid to Dependent Children, and Aid to the Blind.—This title makes three changes in the public assistance provisions of the Social Security Act (titles I, IV, and X), to be effective for the 15 months from October 1946 through December 1947.

(1) The maximum individual assistance payment up to which the Federal Government will contribute is increased from $40 a month to $45 for old-age assistance and aid to the blind, and for aid to dependent children from $18 a month for one child in the family and $12 for each additional child aided to $24 and $15, respectively.

(2) The method of determining Federal matching of assistance payments is changed. Formerly the Federal Government paid one-half of all individual assistance payments within the maximums of $40 for the aged and the blind and of $18 for the first child aided and $12 for each additional child. Under the amendments, the Federal Government will, subject to the maximums on individual payments stated in paragraph (1), pay two-thirds of the first $15 of the average State monthly assistance payment for the aged and the blind, and of the first $9 of such average payment for dependent children, plus one-half of the remainder of such average payments.

(3) The Federal share of the cost of State administration of assistance to the aged is put on the same basis as that for the blind and for dependent children, that is, one-half the sums expended for the proper and efficient administration of the State plan.

Senate Finance Committee Resolution

Senate Resolution 320, considered and agreed to on August 2, authorizes and directs the Senate Committee on Finance "to make a full and complete study and investigation of old-age and survivors insurance and all other aspects of social security, particularly in respect to coverage, benefits, and taxes related thereto so that the Senate may be prepared to deal with such legislation on these subjects as may hereafter originate in the House of Representatives under the requirements of the Constitution."

Railroad Retirement and Railroad Unemployment Insurance Acts

Public Law 572, amending the Railroad Retirement and Railroad Unemployment Insurance Acts and the Internal Revenue Code, was signed by the President on July 31. The new legislation establishes monthly benefits for survivors of insured railroad workers, or a lump-sum payment when no monthly benefit is immediately payable; these survivor benefits are similar to those paid under the Social Security Act but substantially higher—presumably in recognition of the higher contributions under the railroad retirement system. Public Law 572 also amends the Social Security Act to make service in the railroad industry creditable toward survivor benefits which would begin to accrue under that act after 1946; provision is made for correlation of such benefits under the two Federal systems.

Cash benefits for sickness, equal in amount and duration to those for unemployment, and cash maternity benefits for women employees are also provided under the Railroad Unemployment Insurance Act.

Other changes made by Public Law 572 include liberalization of the conditions under which disability retirement benefits are payable; liberalization both in the requirements for and in the amounts of minimum retirement annuities payable to workers with low wages; increase in the maximum daily benefit in unemployment insurance; and extension of the maximum duration of unemployment benefits from 20 to 26 weeks in a benefit year. The contribution rate for the retirement program is increased to 5¾ percent each on employers and employees for 1947 and 1948; for the 3 years beginning 1949, the rate will be 6 percent each; and in 1952 and thereafter it will be 6¼ percent each. No change was made in the 3-percent tax on employers for railroad unemployment insurance purposes.

Public Employment Offices

Public Law 549, the Labor-Federal Security Appropriation Act of 1947, signed by the President on July 26, includes a provision directing the Secretary of Labor to transfer the public employment offices to State control on November 15, 1946. Operation of special veterans' employment services under the Servicemen's Readjustment Act of 1944 and of the employment office facilities and services in the District of Columbia remains with the United States Employment Service, which is also responsible under the Wagner-Peyser Act for ensuring adequate and uniform operating standards of State and local employment offices. The present legislation also empowers the Secretary of Labor to ensure protection of the rights of employees transferred from Federal to State employment under the terms of this act.

Hospital Survey and Construction Act

Public Law 725, the Hospital Survey and Construction Act, became law on August 13. The act authorizes an appropriation of $3 million to be allotted to the States on a population basis to cover one-third of the cost of surveying existing hospital facilities and developing construction programs for additional facilities. Appropriations of $75 million to cover one-third of the cost of constructing facilities in accordance with such programs are authorized for each of the 5 fiscal years beginning July 1, 1946. These funds are to be allotted on a basis which takes into account not only population but also relative State per capita income.

National Mental Health Act

Public Law 487, the National Mental Health Act, approved July 3, authorizes $7.5 million for erecting and equipping adequate hospital and related facilities in or near the District of Columbia, to be known as the National Institute of Mental Health. The Institute will serve as a center for research into and study of psychiatric disorders. The act also increases the amount authorized to be appropriated for grants-in-aid to the States for public health services with special emphasis, in allotment of these funds, to be given to the mental health problem of the State; and authorizes grants to public and private institutions for demonstrations and for training and instruction of qualified individuals.

SELECTED REFERENCES ON LEGISLATIVE DEVELOPMENTS AND PROPOSALS

Amendments to Social Security Act; Hearings Before the Committee on Ways and Means, House of Representatives, 79th Cong., 2d sess., on Social Security Legislation. 1946. 3 vols. Indexed.

"Greater Equity in Public Assistance Financing." *Social Security Bulletin*, June 1945.

"How Can We Assure Adequate Health Service for All the People?" *Social Security Bulletin*, December 1945.

"Improving Old-Age and Survivors Insurance." *Social Security Bulletin*, March 1946.

Issues in Social Security; A Report to the Committee on Ways and Means of the House of Representatives by the Committee's Social Security Technical Staff. (79th Cong., 2d sess.) 1946. See also *Social Security Bulletin*, February 1946.

"Legislative Changes in Public Assistance, 1945." *Social Security Bulletin*, April 1946.

Medical Care Insurance; A Social Insurance Program for Personal Health Services. Report from the Bureau of Research and Statistics, Social Security Board, to the Committee on Education and Labor, U. S. Senate. (79th Cong., 2d sess., Senate Committee Print No. 5.)

National Health Program; Hearings Before the Committee on Education and Labor, U. S. Senate, 79th Cong., 2d sess., on S. 1606 . . . 1946. 5 parts. For excerpts from testimony of Federal Security Agency officials presented before the Committee, see *Social Security Bulletin*, May 1946.

A National Health Program; Message From the President to the Congress of the United States. (H. Doc. 380, 79th Cong.) 1945. See also *Social Security Bulletin*, December 1945.

"People on the Move: Effect of Residence Requirements for Public Assistance." *Social Security Bulletin*, January 1946.

"State Differences in Unemployment Compensation Taxes." *Social Security Bulletin*, October 1945.

"State Unemployment Compensation Laws of 1945." *Social Security Bulletin*, July 1945.

"Ten Years of Social Security." *Social Security Bulletin*, August 1945.

"Ten Years of Social Security Administration in the Southwest." *Social Security Bulletin*, May 1946.

"What Social Security Can Mean to the South." *Social Security Bulletin*, July 1945.

See the *Social Security Yearbooks* for lists of periodicals and other publications issued by the Social Security Board.

APPENDIX

Regional and Field Organization as of June 30, 1946

REGION I. Regional Director: John F. Hardy, Social Security Board, 120 Boylston Street, Boston 16, Mass.

Connecticut: 9 field offices—Bridgeport, Hartford, Meriden, New Britain, New Haven, New London, Stamford, Torrington, Waterbury.

Maine: 4 field offices—Augusta, Bangor, Lewiston, Portland.

Massachusetts: 21 field offices—Attleboro,[1] Boston (2), Brockton, Cambridge, Chelsea, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Lowell, Lynn, Malden, New Bedford, Pittsfield, Quincy, Salem, Springfield, Waltham, Worcester; 1 branch office—Dorchester.

New Hampshire: 4 field offices—Concord, Littleton, Manchester, Portsmouth; 1 branch office—Nashua.

Rhode Island: 3 field offices—Pawtucket, Providence, Woonsocket; 1 branch office—Newport.

Vermont: 3 field offices—Burlington, Montpelier, Rutland.

Itinerant service stations—99.

REGIONE II–III. Regional Director: Peter Kasius, Social Security Board, 11 West Forty-second Street, New York 18, N. Y.

Delaware: 1 field office—Wilmington.

New Jersey: 10 field offices—Atlantic City, Bridgeton, Camden, Elizabeth, Jersey City, Newark, Passaic, Paterson, Perth Amboy, Trenton.

New York: 34 field offices—Albany, Auburn,[1] Binghamton, Buffalo, Elmira, Glens Falls, Gloversville, Jamestown, Kingston, Newburgh, New Rochelle, New York City (Manhattan, 4; Brooklyn, 3; Bronx, 2; Jamaica; Long Island City; Staten Island), Niagara Falls, Ogdensburg, Oswego,[1] Poughkeepsie, Rochester, Schenectady, Syracuse, Troy, Utica, Watertown, Yonkers.

Pennsylvania: 29 field offices—Allentown, Altoona, Ambridge, Braddock, Chester, Du Bois, Easton, Erie, Greensburg, Harrisburg, Hazleton, Johnstown, Lancaster, McKeesport, New Castle, New Kensington, Norristown, Oil City,[1] Philadelphia County (Philadelphia; Germantown; Kensington), Pittsburgh, Pottsville, Reading, Scranton, Uniontown, Wilkes-Barre, Williamsport, York.

Itinerant service stations—184.

REGION IV. Regional Director: Lavinia Engle, Social Security Board, Lenox Building, 1523 L Street NW., Washington 25, D. C.

District of Columbia: 1 field office—Washington.

Maryland: 4 field offices—Baltimore, Cumberland, Hagerstown, Salisbury.

North Carolina: 13 field offices—Asheville, Charlotte, Durham, Fayetteville, Gastonia, Greensboro, Hickory, High Point, Raleigh, Rocky Mount, Salisbury, Wilmington, Winston-Salem.

Virginia: 10 field offices—Alexandria, Bristol, Danville, Lynchburg, Newport News, Norfolk, Petersburg, Richmond, Roanoke, Staunton.

West Virginia: 9 field offices—Beckley,[1] Bluefield, Charleston, Clarksburg, Huntington, Logan,[1] Morgantown,[1] Parkersburg, Wheeling.

Itinerant service stations—139.

---

[1] Opened during fiscal year 1945–46.

REGION V. Regional Director: Mary E. Woods, Social Security Board, Room 400, 1100 Chester Avenue, Cleveland 14, Ohio

Kentucky: 10 field offices—Ashland, Bowling Green, Corbin, Covington, Frankfort, Hazard, Lexington, Louisville, Owensboro, Paducah.

Michigan: 18 field offices—Battle Creek, Bay City, Detroit and Wayne County (Detroit, 2; Dearborn; Highland Park), Escanaba, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Marquette, Muskegon, Pontiac, Port Huron,[1] Saginaw, Traverse City.

Ohio: 21 field offices—Akron, Ashtabula, Canton, Cincinnati, Cleveland, (3),[2] Columbus, Dayton, Hamilton, Lima, Lorain, Mansfield, Marion, Portsmouth, Springfield, Steubenville,[1] Toledo, Warren, Youngstown, Zanesville.

Itinerant service stations—199.

REGION VI. Regional Director: Robert W. Beasley, Social Security Board, Room 2200, 188 West Randolph Street, Chicago 1, Ill.

Illinois: 24 field offices—Aurora, Bloomington,[1] Champaign,[1] Chicago and Cook County (Chicago, 5; Cicero; Evanston; Harvey; Oak Park), Danville, Decatur, East St. Louis, Harrisburg, Joliet, Mount Vernon, Peoria, Quincy, Rockford, Rock Island, Springfield, Waukegan; 1 branch office—Galesburg.

Indiana: 15 field offices—Anderson,[1] Bloomington, Elkhart, Evansville, Fort Wayne, Gary, Hammond, Indianapolis, Kokomo, La Fayette, Muncie, New Albany, Richmond, South Bend, Terre Haute.

Wisconsin: 12 field offices—Eau Claire, Fond du Lac, Green Bay, Janesville,[1] La Crosse, Madison, Milwaukee, Oshkosh,[1] Racine, Sheboygan, Superior, Wausau; 1 branch office—Kenosha.

Itinerant service stations—239.

REGION VII. Regional Director: Richard H. Lyle, Social Security Board, 441 West Peachtree Street, Atlanta 3, Ga.

Alabama: 8 field offices—Anniston, Birmingham, Decatur, Dothan, Gadsden, Mobile, Montgomery, Tuscaloosa.

Florida: 9 field offices—Gainesville,[1] Jacksonville, Miami, Orlando, Pensacola, St. Petersburg, Tallahassee, Tampa, West Palm Beach.

Georgia: 10 field offices—Albany, Athens, Atlanta, Augusta, Columbus, Lagrange,[1] Macon, Rome, Savannah, Waycross.

Mississippi: 7 field offices—Columbus, Greenwood, Gulfport, Hattiesburg, Jackson, Meridian, Vicksburg.

South Carolina: 7 field offices—Charleston, Columbia, Florence, Greenville, Greenwood, Rock Hill, Spartanburg.

Tennessee: 8 field offices—Chattanooga, Columbia,[1] Dyersburg, Jackson, Johnson City, Knoxville, Memphis, Nashville.

Itinerant service stations—342.

REGION VIII. Regional Director: Chester B. Lund, Social Security Board, Midland Bank Building, Fourth Street and Second Avenue, Minneapolis 1, Minn.

Iowa: 9 field offices—Cedar Rapids, Davenport, Des Moines, Dubuque, Fort Dodge, Mason City,[1] Ottumwa, Sioux City, Waterloo.

Minnesota: 8 field offices—Albert Lea, Bemidji, Duluth, Minneapolis, Redwood Falls, St. Cloud, St. Paul, Winona.

Nebraska: 5 field offices—Grand Island, Lincoln, North Platte, Omaha, Scottsbluff.[1]

North Dakota: 4 field offices—Bismarck, Fargo, Grand Forks, Minot.

South Dakota: 4 field offices—Aberdeen, Huron,[1] Rapid City, Sioux Falls.

Itinerant service stations—68.

---

[1] Opened during fiscal year 1945–46.

[2] Two opened during fiscal year 1945–46.

REGION IX. Regional Director: Ed McDonald, Social Security Board, 1006 Grand Avenue, Kansas City 6, Mo.

Arkansas: 7 field offices—El Dorado, Fort Smith, Hot Springs, Jonesboro, Little Rock, Pine Bluff, Texarkana.

Kansas: 8 field offices—Dodge City, Hutchinson,[1] Independence, Kansas City, Pittsburg,[1] Salina, Topeka, Wichita.

Missouri: 10 field offices—Cape Girardeau, Clayton, Hannibal, Jefferson City, Joplin, Kansas City, St. Joseph, St. Louis (2), Springfield.

Oklahoma: 7 field offices—Ardmore, Enid, Lawton, McAlester, Muskogee, Oklahoma City, Tulsa.

Itinerant service stations—169.

REGION X. Regional Director: James B. Marley, Social Security Board, North Presa and East Houston Streets, San Antonio 5, Tex.

Louisiana: 6 field offices—Alexandria, Baton Rouge, Lake Charles, Monroe, New Orleans, Shreveport.

New Mexico: 2 field offices—Albuquerque, Roswell[1]; 1 branch office—Santa Fe.

Texas: 19 field offices—Abilene, Amarillo, Austin, Beaumont, Brownsville, Corpus Christi, Dallas, El Paso, Fort Worth, Galveston, Houston, Lubbock, Lufkin, Paris, San Angelo, San Antonio, Tyler, Waco, Wichita Falls.

Itinerant service stations—122.

REGION XI. Regional Director: Heber R. Harper, Social Security Board, 321 Equitable Building, 730 Seventeenth Street, Denver 2, Colo.

Colorado: 5 field offices—Colorado Springs, Denver, Grand Junction, Greeley, Pueblo.

Idaho: 3 field offices—Boise, Pocatello, Twin Falls.

Montana: 5 field offices—Billings, Butte, Great Falls, Helena, Missoula.

Utah: 2 field offices—Ogden, Salt Lake City.

Wyoming: 3 field offices—Casper, Cheyenne, Rock Springs.

Itinerant service stations—75.

REGION XII. Acting Regional Director: Helen V. Bary, Social Security Board, 785 Market Street, San Francisco 3, Calif.

Arizona: 3 field offices—Flagstaff, Phoenix, Tucson.

California: 21 field offices—Bakersfield, Eureka,[1] Fresno, Los Angeles County (Glendale; Hollywood; Huntington Park; Long Beach; Los Angeles; Pasadena), Oakland, Redding, Sacramento, San Bernadino, San Diego, San Francisco, San Jose, San Mateo, Santa Barbara, Santa Monica,[1] Santa Rosa, Stockton; 1 branch office—Inglewood.

Nevada: 2 field offices—Las Vegas, Reno.

Oregon: 5 field offices—Eugene, Klamath Falls, La Grande, Portland, Salem.

Washington: 6 field offices—Bellingham, Olympia, Seattle, Spokane, Tacoma, Yakima.

Itinerant service stations—71.

REGION XIII. Regional Director: Hugh J. Wade, Social Security Board, P. O. Box 1331, Juneau, Alaska

REGION XIV. Regional Director: Harold S. Burr, Social Security Board, 434 Dillingham Building, Honolulu 16, Hawaii

Hawaii: 1 field office—Honolulu.

AREA OFFICES

188 West Randolph Street, Chicago 1, Ill.; 2605 Walnut Street, Kansas City 8, Mo.[1]; 829 St. Charles Street, New Orleans 13, La.; 155 East Forty-fourth Street, New York 17, N. Y.; 121 North Broad Street, Philadelphia 7, Pa.; 22 Battery Street, San Francisco 11, Calif.

---

[1] Opened during fiscal year 1945–46.

TABLE 1.—*Social Security Board administration: Personnel, salaries, travel, and general expenses, by Bureau or Office, fiscal year 1945–46*

Bureau or Office	Personnel, June 30, 1946			Expenses, fiscal year 1945–46 (in thousands)			
	Total	Departmental	Field	Total	Salaries	Travel	General expenses
Total	11,261	5,548	5,713	$30,081	$25,864	$766	$3,451
Office of the Board	14	14	-------	70	68	2	(1)
Office of the Executive Director	484	473	11	1,288	1,168	34	[2] 86
Regional and Territorial offices	385	-------	385	1,135	898	16	221
Office of the Actuary	14	14	-------	55	54	1	(1)
Office of Appeals Council	36	11	25	162	142	20	(1)
Bureau of Old-Age and Survivors Insurance	9,494	4,470	5,024	24,304	20,805	450	3,049
Bureau of Employment Security	227	195	32	798	735	54	9
Bureau of Public Assistance	[3] 265	171	94	997	915	78	4
Bureau of Accounts and Audits	233	103	130	785	688	94	3
Bureau of Research and Statistics	64	64	-------	237	226	2	9
Informational Service	45	33	12	250	165	15	70

---

[1] Included in amount for the Office of the Executive Director.

[2] Includes amounts for the Office of the Board, Office of the Actuary, and Office of Appeals Council.

[3] Includes 14 departmental and 11 field employees engaged in the program for surplus property utilization.

TABLE 2.—*Social Security Board administration: Appropriations*[1] *and expenses,*[2] *fiscal years 1944–46*

[In thousands; data as of June 30, 1946]

Item	1945–46	1944–45	1943–44
	Appropriations [1]		
Total	$529,425	$471,268	$477,040
Grants to States	499,208	444,472	450,082
Old-age assistance [3]	[5] 441,087	[5] 410,058	[4] 343,654
Aid to dependent children [3]			[6] 56,890
Aid to the blind [3]			10,115
Unemployment compensation administration	[7] 58,121	[7] 34,414	[7] 39,423
Administrative expenses of the Social Security Board [8]	30,217	26,796	26,958
Salaries	25,953	22,711	22,451
Travel	806	783	858
General expenses	3,458	3,302	3,649
	Expenses [2]		
Total	$527,259	$470,593	$466,725
Grants to States	497,178	444,391	440,991
Old-age assistance [3]	368,524	345,738	340,776
Aid to dependent children [3]	60,126	53,891	54,402
Aid to the blind [3]	10,482	10,355	9,764
Unemployment compensation administration	[9] 58,046	[9] 34,407	[9] 36,049
Administrative expenses of the Social Security Board	30,081	26,202	25,734
Salaries	25,864	22,269	21,932
Travel	766	704	713
General expenses	3,451	3,229	3,089

---

[1] Includes regular and deficiency appropriations to the Board; allotments and transfers to the Board for administrative expenses from appropriations of the Federal Security Agency; transfers from the War Manpower Commission and the Department of Labor for 1943–44, 1944–45, and 1945–46; and recoveries from public assistance recipients or their estates. Excludes allocations for the war emergency programs.

[2] Obligations against funds available for fiscal year as defined in footnote 1 for grants to States (advances certified) and administrative expenses of the Social Security Board, including amounts for administration of title II of the Social Security Act for which the general fund of the Treasury is reimbursed from the old-age and survivors insurance trust fund.

[3] A single appropriation covered the 3 public assistance programs for 1944–45 and 1945–46. Appropriations and expenses for 1943–44 reflect transfers among the 3 programs.

[4] Includes recoveries of $303,887.

[5] Includes recoveries of $87,435 in 1945–46 and $257,910 in 1944–45.

[6] Includes recoveries of $4,976.

[7] Includes $1,078,965 for 1945–46, $4,417,892 for 1944–45, and $4,095,411 for 1943–44 transferred from the WMC and the Department of Labor to reimburse States for facilities and services furnished to the U. S. Employment Service.

[8] Reflects transfers from the Social Security Board's appropriations to the Federal Security Agency.

[9] Includes expenditures by State agencies for facilities and services furnished to the USES, reimbursed in 1945–46, 1944–45, and 1943–44, respectively, from the $1.1 million, $4.4 million, and $4.1 million received from the WMC and the Department of Labor.

TABLE 3.—*Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1944–46*

[In millions]

Item	1945–46	1944–45	1943–44
Contributions collected under:			
Federal Insurance Contributions Act [1]	$1, 238	$1, 310	$1, 292
Federal Unemployment Tax Act [2]	180	185	180
State unemployment insurance laws [3] [4]	1, 009	1, 252	1, 353
Old-age and survivors insurance trust fund:			
Receipts, total	1, 386	1, 434	1, 395
Appropriations [5]	1, 238	1, 310	1, 292
Interest	148	124	103
Expenditures, total	358	267	217
Monthly benefits and lump-sum payments [6]	321	240	185
Administration [7]	37	27	33
Assets, end of year	7, 641	6, 613	5, 446
State accounts in the unemployment trust fund:			
Receipts, total	1, 140	1, 369	1, 438
Deposits [4]	1, 010	1, 256	1, 349
Interest	130	113	89
Withdrawals for benefit payments	1, 129	70	60
Assets, end of year	6, 691	6, 679	5, 380

[1] 1-percent tax paid by employers and by employees on wages up to and including $3,000 a year.

[2] Tax paid only by employers of 8 or more. Employers offset against this tax—up to 90 percent of the amount assessed—contributions which they have paid under State unemployment insurance laws or full amount they would have paid if they had not been allowed reduced contribution rates under State experience-rating provisions. Rate is 3 percent of first $3,000 a year of wages paid to each employee by subject employer; because of credit offset, effective rate is 0.3 percent of such wages.

[3] Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies; corrected to Aug. 20, 1946.

[4] Contributions and deposits by States differ slightly, primarily because of time lag in making deposits.

[5] Equal to amounts collected under the Federal Insurance Contributions Act.

[6] Checks-cashed basis.

[7] Figures do not reflect actual expenses in the respective years because of bookkeeping adjustments.

Source: Compiled from U. S. Treasury and State agency reports.

TABLE 4.—*Old-age and survivors insurance: Monthly benefits in force for family groups, June 30, 1946 and 1945*

[In thousands, except for average benefit; estimated from a 20-percent sample; corrected to Aug. 30, 1946]

Type of family and entitled beneficiaries	June 30, 1946				June 30, 1945			
	Number of families	Number of beneficiaries	Monthly benefits in force		Number of families	Number of beneficiaries	Monthly benefits in force	
			Total monthly amount	Average per family			Total monthly amount	Average per family
Total	1, 096. 1	1, 700. 7	$32, 271	$29. 40	813. 0	1, 284. 7	$23, 607	$29. 00
Retired-worker families:								
Worker only:								
Male	410. 3	410. 3	10, 175	24. 80	286. 4	286. 4	6, 904	24. 10
Female	91. 9	91. 9	1, 820	19. 80	69. 0	69. 0	1, 337	19. 40
Worker and wife	217. 8	435. 6	8, 463	38. 90	153. 3	306. 6	5, 812	37. 90
Worker and 1 child	9. 8	19. 6	361	36. 80	6. 8	13. 6	241	35. 40
Worker and 2 or more children	5. 2	15. 8	240	46. 20	3. 5	10. 7	154	44. 10
Worker, wife, and children	. 2	. 6	9	(1)	. 2	. 5	8	(1)
Survivor families:								
Aged widow only	112. 0	112. 0	2, 262	20. 20	83. 0	83. 0	1, 676	20. 20
Widow and 1 child	91. 7	183. 4	3, 136	34. 20	79. 3	158. 7	2, 697	34. 00
Widow and 2 children	50. 3	150. 9	2, 409	47. 90	42. 9	128. 7	2, 036	47. 40
Widow and 3 or more children	26. 5	108. 4	1, 352	51. 00	22. 8	92. 8	1, 150	50. 40
1 child only	31. 5	31. 5	398	12. 60	27. 1	27. 1	338	12. 40
2 children	14. 8	29. 6	354	23. 90	12. 6	25. 2	299	23. 70
3 children	8. 8	26. 4	310	35. 30	7. 2	21. 5	254	35. 30
4 or more children	19. 0	77. 9	892	46. 90	13. 6	55. 2	626	46. 20
1 parent	5. 7	5. 7	75	13. 20	4. 8	4. 8	64	13. 20
2 parents	. 6	1. 1	14	(1)	. 5	. 9	11	(1)

[1] No average shown because based on too few cases.

TABLE 5.—*Old-age and survivors insurance: Selected data on benefits and wage credits, by State, for specified periods, 1944–46*

[In thousands, except for average wage credits]

State[1]	Monthly benefits in force, June 30[2]		Payments certified, fiscal year[2]			Workers with wage credits, calendar year[5]	Amount of wage credits, calendar year[6]		Employee accounts established, fiscal year[7]	Employers reporting taxable wages, July–September[8]
	Number	Amount	Total[3]	Monthly benefits	Lump-sum payments[4]		Total	Average per worker		
1943–44[9]	998. 2	$18, 252	$192, 438	$173, 281	$19, 134	47, 656	$61, 416, 000	$1, 289	5, 778	1, 998
1944–45[9]	1, 284. 7	23, 607	250, 638	224, 752	25, 863	46, 296	63, 363, 000	1, 369	3, 979	2, 038
1945–46[9]	1, 700. 7	32, 271	337, 061	311, 017	26, 029	45, 696	61, 448, 000	1, 345	2, 953	2, 151
Ala	25. 1	378	4, 051	3, 772	279	815	753, 002	924	63	24
Alaska	. 4	9	95	82	13	53	56, 207	1, 053	2	2
Ariz	5. 2	95	1, 006	926	80	203	179, 598	883	15	8
Ark	11. 3	163	1, 743	1, 604	139	375	260, 055	693	43	19
Calif	116. 2	2, 364	23, 264	21, 333	1, 931	4, 159	5, 290, 185	1, 272	211	151
Colo	11. 9	223	2, 206	2, 054	152	362	320, 322	885	29	20
Conn	35. 1	747	7, 492	6, 909	583	950	1, 476, 599	1, 544	29	32
Del	4. 5	88	889	825	64	160	196, 704	1, 229	5	5
D. C	7. 5	140	1, 515	1, 349	166	354	323, 506	913	30	14
Fla	27. 0	483	4, 911	4, 606	305	791	652, 215	824	58	35
Ga	24. 4	354	3, 768	3, 432	336	962	763, 774	794	80	27
Hawaii	4. 1	69	684	655	29	123	146, 412	1, 190	12	11
Idaho	4. 2	73	687	660	27	148	117, 051	792	12	8
Ill	113. 1	2, 260	23, 361	21, 252	2, 109	3, 623	4, 863, 745	1, 342	152	166
Ind	46. 9	888	9, 208	8, 500	708	1, 452	1, 880, 249	1, 295	64	56
Iowa	21. 6	375	3, 792	3, 550	242	609	592, 346	972	72	43
Kans	16. 8	288	2, 920	2, 733	187	576	554, 077	963	35	30
Ky	26. 9	431	4, 580	4, 292	288	666	615, 008	924	60	26
La	18. 9	305	3, 186	2, 918	268	724	695, 603	960	58	26
Maine	15. 7	280	2, 723	2, 556	167	325	364, 892	1, 123	21	16
Md	24. 1	444	4, 700	4, 294	406	860	1, 055, 506	1, 228	44	28
Mass	81. 4	1, 647	16, 624	15, 330	1, 294	1, 863	2, 559, 115	1, 374	78	71
Mich	78. 2	1, 576	16, 073	14, 711	1, 362	2, 525	4, 037, 212	1, 599	103	85
Minn	25. 6	494	5, 075	4, 714	361	779	861, 159	1, 106	64	46
Miss	9. 6	132	1, 344	1, 232	112	397	250, 010	630	47	17
Mo	40. 2	757	7, 722	7, 076	646	1, 361	1, 406, 023	1, 033	75	63
Mont	5. 2	99	998	927	71	137	133, 289	970	11	10
Nebr	8. 5	146	1, 469	1, 346	123	341	320, 457	941	25	21
Nev	1. 4	28	290	250	40	82	70, 373	858	4	3
N. H	9. 3	173	1, 661	1, 553	108	179	186, 718	1, 045	13	9
N. J	70. 7	1, 473	15, 300	13, 968	1, 332	2, 041	2, 855, 119	1, 399	78	80
N. Mex	3. 1	48	492	465	27	130	85, 661	659	15	8
N. Y	213. 3	4, 239	50, 218	46, 558	3, 660	6, 410	8, 783, 291	1, 370	314	329
N. C	29. 2	419	4, 458	4, 129	329	1, 028	831, 125	809	84	32
N. Dak	2. 1	35	367	329	38	98	63, 442	647	13	8
Ohio	112. 9	2, 258	22, 856	21, 098	1, 758	3, 153	4, 542, 595	1, 441	122	106
Okla	14. 4	242	2, 525	2, 336	189	603	553, 492	918	45	29
Oreg	21. 0	417	3, 766	3, 497	269	599	704, 670	1, 177	28	17
Pa	172. 2	3, 394	35, 463	32, 837	2, 626	3, 913	5, 488, 677	1, 403	169	139
R. I	16. 2	334	3, 293	3, 054	239	342	446, 011	1, 302	13	12
S. C	14. 9	205	2, 174	2, 005	169	510	376, 655	738	48	17
S. Dak	2. 8	50	509	477	32	111	73, 327	663	12	9
Tenn	23. 7	364	3, 815	3, 521	294	987	853, 899	865	77	31
Tex	47. 6	763	8, 086	7, 366	720	2, 092	2, 042, 846	977	184	107
Utah	6. 2	110	1, 099	1, 036	63	203	190, 138	939	14	7
Vt	5. 3	95	905	853	52	112	103, 618	924	8	6
Va	27. 3	441	4, 624	4, 301	323	877	781, 378	891	62	31
Wash	31. 5	641	6, 129	5, 701	428	1, 075	1, 306, 250	1, 215	45	30
W. Va	25. 7	444	4, 821	4, 533	288	584	728, 772	1, 248	39	21
Wis	38. 4	754	7, 750	7, 177	573	1, 117	1, 494, 145	1, 338	62	55
Wyo	1. 9	36	359	335	24	88	76, 477	870	6	5

[1] State distribution estimated, except for employee accounts established.

[2] Data for beneficiaries residing in foreign countries are allocated to the State in which claim was filed.

[3] United States totals include lump-sum payments under the 1935 act, not distributed by State, amounting to $22,000 in 1943–44, $24,000 in 1944–45, and $15,000 in 1945–46.

[4] Under the 1939 amendments. For lump-sum payments under the 1935 act, see footnote 3.

[5] United States totals represent number of different workers employed at some time during 1943, 1944, and 1945, respectively. State data represent workers employed in the State at some time during 1944; workers employed in more than 1 State counted once in each of the States in which employed.

[6] United States totals are for 1943, 1944, and 1945, respectively. State data represent 1944 wage credits, distributed according to the State where wages were paid.

[7] For 1945–46, covers period July 1, 1945–June 28, 1946. For 1943–44, excludes accounts issued to Federal civilian employees of the War Department.

[8] Employer returns for July–September 1943, 1944, and 1945, respectively. A return may relate to more than 1 establishment if the employer operates several establishments but reports for the concern as a whole. Employers operating in more than 1 State are included in the State from which return is filed.

[9] See column heads for period to which data relate.

TABLE 6.—*Old-age and survivors insurance: Benefits in force and in current-payment status, payments certified, and workers with wage credits, for specified periods, 1944–46*

[Corrected to Aug. 30, 1946]

Item	Fiscal year		
	1945–46	1944–45	1943–44
Benefits in force (end of period):			
Number	1,700,696	1,284,679	998,229
Primary	735,154	519,186	417,921
Wife's	218,017	153,521	121,645
Child's	460,161	378,315	287,368
Widow's	112,025	83,007	58,107
Widow's current	168,497	144,923	108,721
Parent's	6,842	5,727	4,467
Total monthly amount	$32,270,667	$23,606,761	$18,252,457
Primary	17,998,604	12,357,934	9,805,734
Wife's	2,816,565	1,937,931	1,517,354
Child's	5,745,188	4,692,331	3,545,892
Widow's	2,262,806	1,672,764	1,171,475
Widow's current	3,358,188	2,870,973	2,153,432
Parent's	89,316	74,828	58,570
Average monthly amount:			
Primary	$24.48	$23.80	$23.46
Wife's	12.92	12.62	12.47
Child's	12.49	12.40	12.34
Widow's	20.20	20.15	20.16
Widow's current	19.93	19.81	19.81
Parent's	13.05	13.07	13.11
Benefits in current-payment status (end of period):			
Number	1,502,085	1,106,002	846,303
Primary	632,038	430,723	339,954
Wife's	193,241	132,155	103,164
Child's	431,202	348,413	261,806
Widow's	110,168	81,500	57,126
Widow's current	128,688	107,597	79,866
Parent's	6,748	5,614	4,387
Total monthly amount	$28,210,828	$20,162,831	$15,350,875
Primary	15,443,266	10,310,626	8,027,699
Wife's	2,496,588	1,680,602	1,297,794
Child's	5,391,169	4,324,073	3,234,191
Widow's	2,225,871	1,642,415	1,151,346
Widow's current	2,565,790	2,131,699	1,582,297
Parent's	88,144	73,416	57,548
Average monthly amount:			
Primary	$24.43	$23.94	$23.61
Wife's	12.92	12.72	12.58
Child's	12.50	12.41	12.35
Widow's	20.20	20.15	20.15
Widow's current	19.94	19.81	19.81
Parent's	13.06	13.08	13.12
Payments certified during period:			
Monthly benefits	$311,017,291	$224,751,610	$173,281,396
Primary	164,245,802	114,587,797	90,931,439
Supplementary	28,750,454	20,218,139	15,843,939
Survivor	118,021,035	89,945,674	66,506,018
Lump-sum payments	26,043,831	25,886,565	19,156,496
1939 amendments	26,028,847	25,862,633	19,134,018
1935 act	14,984	23,932	22,478
Total estimated number of living workers with wage credits (midpoint of period—Jan. 1)	73,200,000	70,200,000	65,700,000
Fully insured	33,800,000	31,800,000	29,900,000
Currently but not fully insured	7,700,000	6,600,000	5,000,000
Uninsured	31,700,000	31,800,000	30,800,000

TABLE 7.—*Unemployment insurance: Selected data on benefits, claims, employment, and finance, by State, for specified periods, 1945–46*

State	Beneficiaries,[1] fiscal year	Benefit payments, fiscal year			Weeks compensated, fiscal year (in thousands)	Initial claims,[4] fiscal year (in thousands)	Workers with wage credits,[5] calendar year (in thousands)	Employers subject to State law, June 30 (in thousands)	Funds available for benefits, June 30[6] (in millions)	Federal grants for administration,[7] fiscal year (in thousands)
		Total amount [2] (in thousands)	Average weekly benefit for total unemployment	Ratio of benefits [2] to collections [3] (percent)						
1943–44 [8]	528,072	$60,994	$14.96	4.5	4,259	1,552	44,000	865	$5,389	$31,574
1944–45 [8]	594,348	71,209	16.70	5.7	4,447	1,688	43,000	903	6,685	29,785
1945–46 [8]	5,263,142	1,091,369	18.81	108.2	58,698	10,843	[9] 42,500	1,139	6,732	[10] 56,104
Ala	73,606	16,108	17.00	252.5	954	141	714	7	57	648
Alaska	2,491	401	15.74	37.0	26	2	48	2	9	87
Ariz	12,124	1,567	14.62	50.3	108	32	184	5	20	219
Ark	27,242	2,912	12.71	53.2	231	78	359	21	31	429
Calif	590,734	145,582	19.23	101.3	7,656	1,098	3,641	191	709	5,475
Colo	9,846	892	13.88	17.9	65	31	311	4	38	183
Conn	134,154	27,294	21.06	105.6	1,307	247	873	15	172	1,025
Del	10,422	1,990	16.58	204.7	123	22	157	5	14	154
D. C	5,674	943	17.53	51.1	54	10	349	16	44	299
Fla	37,234	4,768	14.24	44.6	339	87	710	9	61	417
Ga	45,109	8,606	16.05	70.4	538	94	830	9	81	616
Hawaii	453	55	21.70	3.0	3	1	136	7	19	81
Idaho	4,276	594	15.74	22.5	38	13	156	10	16	174
Ill	435,686	79,244	18.90	135.9	4,275	872	3,237	44	491	3,411
Ind	158,432	29,595	17.78	134.0	1,686	403	1,266	12	174	1,186
Iowa	27,476	4,940	16.27	52.9	309	63	503	8	65	294
Kans	55,066	10,271	15.31	129.5	678	89	435	6	51	465
Ky	39,290	5,993	12.53	54.1	482	126	501	10	90	456
La	53,571	11,266	16.17	85.4	710	127	619	13	78	716
Maine	36,502	4,699	16.04	79.3	303	53	247	4	37	255
Md	142,053	25,051	19.13	148.7	1,341	194	813	31	117	725
Mass	185,332	35,566	19.90	163.0	1,824	357	1,812	77	203	2,314
Mich	419,548	123,310	21.52	202.5	5,723	918	2,034	23	218	3,832
Minn	48,726	9,561	17.04	56.3	570	105	740	25	95	776
Miss	12,799	1,613	13.15	26.8	125	37	329	5	29	264
Mo	131,739	22,281	16.56	99.0	1,358	311	1,195	13	157	961
Mont	6,867	890	13.49	24.6	66	19	118	10	21	153
Nebr	10,996	1,817	16.41	61.6	113	24	263	5	27	175
Nev	2,323	422	18.13	28.1	23	8	73	3	11	113
N. H	7,130	683	13.69	22.4	52	21	150	4	24	168
N. J	321,670	87,592	20.51	137.6	4,324	572	1,790	30	419	3,079
N. Mex	1,447	167	13.43	8.4	13	8	142	7	11	126
N. Y	714,583	149,893	19.58	93.7	7,798	1,739	5,766	139	983	7,955
N. C	35,929	4,161	12.31	26.0	342	73	779	12	115	671
N. Dak	1,171	180	17.08	23.4	11	5	66	2	6	83
Ohio	249,693	60,353	18.97	104.5	3,197	445	3,045	59	469	2,788
Okla	45,935	9,815	17.06	181.4	581	109	495	7	42	428
Oreg	99,469	15,854	16.92	137.1	943	151	555	12	66	679
Pa	529,159	84,645	18.22	141.9	4,661	1,125	3,824	150	585	4,417
R. I	71,738	11,882	17.41	89.1	700	107	309	8	73	374
S. C	8,846	1,120	13.77	21.8	82	31	444	4	42	291
S. Dak	1,085	118	12.97	20.0	9	4	75	2	7	70
Tenn	70,782	10,704	13.58	61.1	792	132	867	8	89	763
Tex	78,523	13,657	15.92	86.9	867	180	1,715	22	154	1,221
Utah	11,249	3,120	23.60	63.9	134	26	201	9	27	245
Vt	5,228	836	16.98	46.5	50	10	95	2	13	122
Va	45,913	3,916	12.89	47.0	312	73	766	9	68	426
Wash	126,543	35,888	21.28	125.7	1,701	214	999	40	138	1,206
W. Va	50,201	8,448	16.37	88.8	523	136	500	5	70	473
Wis	65,512	9,906	17.95	47.3	568	114	991	16	188	701
Wyo	1,565	200	18.96	17.4	11	3	78	5	9	105

---

[1] Based on number of first payments.

[2] Adjusted for voided benefit checks.

[3] Contributions, penalties, and interest from employers, and contributions from employees. Adjusted for refunds of contributions and for dishonored contribution checks.

[4] New claims, plus claims filed at beginning of an additional spell of unemployment during a previously established benefit year.

[5] Estimated number of different workers in each State with wages in covered employment some time in calendar years 1943, 1944, and 1945, respectively, after adjustment for duplication resulting from employment of individual workers in more than 1 State during same year. Gross totals before adjustment are: for 1943, 49,496,000; for 1944, 47,538,000; for 1945, 46,304,100.

(*Continued on next page*)

TABLE 8.—*Unemployment insurance: State accounts in the Federal unemployment trust fund, by State, fiscal year 1945–46* [1]

[In thousands]

State	Deposits	Interest	Withdrawals	Balance, end of year
Total	$1, 010, 739	$130, 479	[2] $1, 144, 024	$6, 676, 492
Alabama	6, 243	1, 197	16, 385	56, 823
Alaska	1, 054	157	420	8, 459
Arizona	3, 127	376	1, 645	20, 295
Arkansas	5, 466	576	3, 195	30, 948
California	143, 928	13, 796	151, 784	702, 776
Colorado	4, 987	685	920	37, 788
Connecticut	25, 845	3, 293	27, 700	171, 535
Delaware	972	269	2, 151	13, 490
District of Columbia	1, 845	833	1, 245	44, 087
Florida	10, 699	1, 108	5, 025	60, 547
Georgia	12, 125	1, 525	8, 925	80, 988
Hawaii	1, 808	351	60	19, 243
Idaho	2, 640	292	720	16, 206
Illinois	58, 305	9, 633	82, 600	486, 743
Indiana	23, 087	3, 418	33, 770	170, 917
Iowa	9, 379	1, 191	5, 035	64, 563
Kansas	7, 915	1, 011	10, 735	50, 144
Kentucky	11, 073	1, 668	[2] 7, 239	89, 094
Louisiana	13, 193	1, 515	11, 920	77, 638
Maine	5, 942	701	4, 850	36, 704
Maryland	16, 849	2, 369	26, 450	115, 487
Massachusetts	21, 820	4, 046	36, 800	201, 870
Michigan	60, 846	4, 731	134, 900	205, 538
Minnesota	16, 940	1, 757	11, 045	93, 014
Mississippi	6, 020	512	1, 694	28, 888
Missouri	22, 560	3, 040	22, 890	156, 207
Montana	3, 524	363	1, 060	20, 233
Nebraska	2, 960	506	1, 960	26, 705
Nevada	1, 496	200	509	10, 916
New Hampshire	3, 051	431	1, 035	23, 613
New Jersey	63, 704	8, 318	88, 540	418, 276
New Mexico	1, 975	203	190	11, 442
New York	159, 889	18, 724	153, 675	979, 216
North Carolina	15, 967	2, 079	4, 310	114, 300
North Dakota	765	101	293	5, 477
Ohio	57, 960	9, 072	60, 495	468, 097
Oklahoma	5, 405	855	12, 165	40, 089
Oregon	11, 564	1, 370	16, 090	66, 231
Pennsylvania	59, 622	11, 460	91, 150	577, 835
Rhode Island	13, 341	1, 389	12, 725	72, 177
South Carolina	5, 121	755	1, 634	41, 172
South Dakota	585	125	116	6, 807
Tennessee	17, 504	1, 664	10, 850	88, 473
Texas	15, 962	2, 943	14, 129	153, 494
Utah	4, 895	503	3, 365	26, 494
Vermont	1, 796	241	1, 045	12, 951
Virginia	8, 815	1, 253	4, 580	67, 655
Washington	28, 545	2, 851	34, 994	139, 026
West Virginia	9, 498	1, 337	8, 700	69, 418
Wisconsin	20, 974	3, 527	10, 100	187, 709
Wyoming	1, 153	158	210	8, 694

[1] Trust fund maintains a separate account for each State agency, in which are held all moneys deposited from State unemployment funds and from which State agencies withdraw amounts as required for benefit payments. Deposits include those not cleared by the Treasurer of the United States; interest includes accrued interest receivable; withdrawals include outstanding checks; these items excluded from table 3.

[2] Includes withdrawals from the Kentucky account for administrative expenses of the State unemployment insurance program; equivalent amounts, recorded as grants to the State for unemployment insurance administration, were paid by the Social Security Board for the State to the railroad unemployment account in accordance with section 13 of the Railroad Unemployment Insurance Act.

Source: Compiled from data furnished by the Treasury Department, Bureau of Accounts.

Footnotes to table 7—Continued

[6] Sum of balances in State clearing accounts, benefit-payment accounts, and unemployment trust fund accounts maintained in the U. S. Treasury.

[7] Advances for unemployment insurance administration certified to State agencies during fiscal year, including amount reimbursed to the War Manpower Commission and the Department of Labor for services and facilities provided to State agencies by the USES. Excludes amounts for services and facilities furnished to the USES by State agencies as well as unencumbered balances reallotted to State agencies. Totals include, but State figures exclude, expenses for postage.

[8] See column heads for period to which data relate.

[9] Preliminary estimate.

[10] Expenses for postage partly estimated.

TABLE 9.—*Special types of public assistance under plans approved by the Social Security Board: Number of recipients and average payment, June 1946, and total payments to recipients, fiscal year 1945–46, by program and State*

State	Old-age assistance			Aid to dependent children				Aid to the blind		
	Number of recipients, June	Payments to recipients		Number of recipients, June		Payments to recipients		Number of recipients, June	Payments to recipients	
		Average payment, June	Total, fiscal year (in thousands)	Families	Children	Average payment per family, June	Total, fiscal year (in thousands)		Average payment, June	Total, fiscal year (in thousands)
1943–44	2,087,748	$27.56	$679,329	260,126	651,208	$43.13	$135,156	57,867	$28.66	$18,468
1944–45	2,038,395	29.46	701,951	255,578	646,582	47.46	138,084	55,465	30.27	19,802
1945–46	2,108,216	31.48	761,587	311,250	799,325	53.71	172,800	57,615	32.89	21,409
Ala	38,686	18.18	6,681	6,752	18,916	28.59	1,860	850	18.24	158
Alaska	1,366	41.03	622	113	309	48.46	36			
Ariz	9,748	38.78	4,422	1,821	5,260	39.49	736	531	46.59	268
Ark	27,579	17.02	5,210	4,539	12,156	28.26	1,308	1,194	18.98	255
Calif	162,308	47.66	90,901	7,985	20,160	88.80	7,253	5,904	57.95	3,722
Colo	40,367	41.48	20,068	3,641	9,912	61.65	2,410	447	36.59	196
Conn	14,689	40.93	6,595	2,734	6,730	90.79	2,345	138	40.67	60
Del	1,187	19.27	262	273	783	75.47	239	48	30.46	6
D. C	2,278	33.69	978	790	2,452	65.12	553	197	36.75	90
Fla	45,902	30.55	15,282	6,609	16,244	34.13	2,539	2,387	31.78	853
Ga	69,739	13.00	9,628	4,780	12,130	27.30	1,276	2,099	15.76	359
Hawaii	1,497	25.15	425	659	2,064	71.78	448	62	28.23	20
Idaho	9,857	32.84	3,744	1,430	3,807	61.90	870	202	34.94	82
Ill	124,889	33.98	48,814	21,785	52,988	68.50	14,996	4,986	35.15	2,098
Ind	54,557	26.51	16,988	6,596	15,954	38.31	2,736	1,929	29.39	686
Iowa	48,357	33.96	19,001	3,579	9,206	33.86	1,236	1,220	38.95	527
Kans	29,505	30.76	10,337	3,490	8,980	57.19	2,015	1,080	33.64	413
Ky	44,240	11.79	6,348	5,722	15,051	21.37	1,348	1,552	13.34	245
La	37,957	21.35	9,944	9,521	25,115	36.06	4,160	1,393	24.59	427
Maine	15,010	30.83	5,387	1,582	4,478	71.91	1,208	778	31.57	298
Md	11,546	28.28	3,889	3,822	11,058	37.86	1,487	454	31.93	162
Mass	79,539	46.83	41,198	8,250	20,593	84.38	7,651	1,068	47.39	553
Mich	89,453	33.55	33,663	16,859	40,327	69.02	11,601	1,330	36.21	544
Minn	54,177	33.82	21,132	5,141	13,083	53.99	2,962	947	40.11	439
Miss	27,540	16.62	5,217	3,400	8,940	26.27	975	1,641	23.00	408
Mo	105,348	28.44	31,984	14,913	39,247	36.22	5,380			
Mont	10,691	32.63	4,107	1,450	3,880	54.73	821	359	35.70	142
Nebr	24,295	32.25	8,921	2,546	6,053	66.51	1,555	439	32.72	165
Nev	1,947	38.84	889							
N. H	6,588	31.29	2,394	939	2,400	71.16	711	284	32.37	104
N. J	22,925	33.30	8,870	3,614	9,117	65.15	2,490	550	35.30	221
N. Mex	6,724	31.11	2,320	2,862	7,503	36.55	1,188	245	28.29	83
N. Y	104,162	37.60	46,369	28,789	69,797	81.16	23,574	3,088	42.59	1,509
N. C	32,916	13.94	5,291	6,432	17,559	28.03	1,997	2,587	21.09	587
N. Dak	8,712	35.03	3,539	1,481	4,129	61.14	980	119	35.59	46
Ohio	116,633	31.94	42,892	8,261	22,974	57.91	5,248	3,096	28.49	1,015
Okla	86,691	35.50	34,793	19,780	48,279	35.02	7,116	2,014	36.69	838
Oreg	21,015	39.53	9,457	1,431	3,547	85.77	1,277	368	48.66	213
Pa	85,985	30.91	30,996	31,658	82,939	65.74	20,986			
R. I	7,568	35.49	3,082	1,767	4,525	68.55	1,240	111	34.98	42
S. C	23,402	16.09	4,173	4,325	12,627	23.61	1,093	1,039	21.18	244
S. Dak	12,673	27.23	4,015	1,692	4,188	40.32	707	214	24.25	61
Tenn	38,424	16.30	7,340	11,732	30,988	29.13	4,097	1,568	20.14	370
Tex	182,561	23.95	51,004	9,343	23,089	25.31	2,672	4,885	26.69	1,398
Utah	12,828	39.12	5,971	2,081	5,578	76.25	1,710	141	40.84	66
Vt	5,222	24.04	1,461	609	1,620	35.69	248	165	32.36	62
Va	14,928	15.30	2,665	3,808	10,908	34.31	1,433	981	19.31	219
Wash	65,278	53.53	40,705	5,204	12,798	99.28	4,918	634	59.61	421
W. Va	18,944	17.22	3,641	8,002	22,254	31.58	2,653	842	19.45	184
Wis	46,261	31.16	16,407	6,338	15,730	64.38	4,246	1,338	31.54	494
Wyo	3,522	38.92	1,563	320	900	60.70	212	111	41.61	56

TABLE 10.—*Special types of public assistance under plans approved by the Social Security Board: Federal grants certified and total expenditures and percent from Federal funds, by program and State, fiscal year 1945–46*

[Amounts in thousands]

State	Federal grants certified [1]				Total expenditures for assistance and administration					
	Total	Old-age assistance	Aid to dependent children	Aid to the blind	Old-age assistance		Aid to dependent children		Aid to the blind	
					Amount	Percent from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds
1943–44	$404, 942	$340, 776	$54, 402	$9, 764	$720, 305	47. 6	$148, 070	38. 3	$20, 622	47. 5
1944–45	409, 985	345, 738	53, 892	10, 355	743, 984	47. 3	151, 398	36. 4	21, 729	47. 4
1945–46	439, 132	368, 524	60, 126	10, 482	806, 349	46. 2	188, 868	33. 3	23, 500	45. 5
Ala	4, 593	3, 500	1, 007	86	7, 086	49. 4	2, 058	49. 4	172	50. 0
Alaska	304	281	23	--------	645	43. 9	51	41. 8	--------	--------
Ariz	2, 822	2, 313	394	115	4, 612	50. 3	824	50. 0	285	42. 6
Ark	3, 690	2, 846	697	147	5, 526	49. 4	1, 404	50. 0	278	50. 0
Calif	42, 297	39, 114	1, 803	1, 380	95, 157	40. 9	8, 062	23. 4	4, 059	34. 7
Colo	10, 227	9, 300	812	114	20, 642	45. 0	2, 597	32. 3	223	50. 0
Conn	3, 641	3, 062	551	29	6, 864	45. 7	2, 451	21. 9	63	45. 0
Del	219	132	81	5	306	45. 0	282	30. 7	10	50. 0
D. C	725	472	209	43	1, 082	44. 9	630	33. 0	98	46. 3
Fla	9, 730	7, 943	1, 347	441	16, 060	49. 9	2, 759	50. 0	906	50. 0
Ga	5, 860	4, 983	679	197	10, 583	47. 8	1, 397	49. 6	409	49. 5
Hawaii	369	213	144	11	516	42. 3	525	32. 2	25	48. 9
Idaho	2, 205	1, 866	298	41	3, 945	47. 4	921	32. 7	90	46. 8
Ill	31, 321	25, 290	4, 967	1, 065	51, 716	47. 7	16, 180	29. 3	2, 306	48. 7
Ind	10, 520	8, 859	1, 290	372	18, 145	49. 0	3, 044	44. 5	762	49. 9
Iowa	10, 104	9, 237	607	260	20, 027	47. 7	1, 374	50. 0	582	46. 1
Kans	6, 099	5, 162	720	217	11, 205	46. 2	2, 234	33. 1	463	47. 0
Ky	4, 348	3, 456	756	136	6, 802	49. 0	1, 448	50. 0	264	50. 0
La	7, 262	5, 130	1, 906	227	10, 838	47. 6	4, 826	42. 5	473	48. 9
Maine	3, 367	2, 843	365	159	5, 702	49. 6	1, 279	28. 8	314	50. 0
Md	2, 916	2, 000	831	85	4, 214	48. 4	1, 730	50. 0	173	50. 0
Mass	18, 525	16, 617	1, 676	232	43, 808	39. 2	8, 194	22. 5	581	41. 2
Mich	20, 297	17, 445	2, 569	283	35, 372	49. 6	12, 224	26. 6	568	49. 7
Minn	11, 628	10, 318	1, 096	214	22, 198	48. 1	3, 250	35. 4	489	44. 5
Miss	3, 426	2, 703	512	211	5, 630	48. 6	1, 059	50. 0	431	50. 0
Mo	19, 735	16, 892	2, 843	--------	33, 809	49. 7	5, 792	50. 0	--------	--------
Mont	2, 486	2, 111	297	78	4, 383	49. 1	892	35. 6	162	49. 8
Nebr	5, 294	4, 708	501	84	9, 426	49. 7	1, 686	30. 8	177	50. 0
Nev	468	468	--------	--------	951	49. 1	--------	--------	--------	--------
N. H	1, 393	1, 171	172	51	2, 545	49. 3	734	25. 6	111	49. 9
N. J	5, 127	4, 229	777	121	9, 814	45. 2	2, 703	29. 0	259	46. 3
N. Mex	1, 750	1, 149	557	45	2, 521	46. 2	1, 338	44. 0	94	49. 8
N. Y	27, 890	21, 095	6, 064	732	51, 662	41. 9	26, 353	24. 3	1, 776	42. 8
N. C	4, 231	2, 783	1, 109	340	5, 738	48. 4	2, 213	50. 0	698	50. 0
N. Dak	2, 031	1, 686	323	22	3, 774	44. 8	1, 068	32. 7	55	45. 5
Ohio	24, 377	21, 828	1, 953	595	45, 263	49. 7	5, 809	33. 5	1, 178	50. 0
Okla	22, 335	18, 234	3, 668	433	36, 010	50. 7	7, 463	50. 0	867	50. 0
Oreg	5, 006	4, 611	307	88	9, 925	45. 8	1, 375	23. 0	222	39. 1
Pa	21, 635	15, 334	6, 302	--------	33, 415	47. 9	23, 174	29. 8	--------	--------
R. I	1, 880	1, 512	349	20	3, 246	45. 9	1, 331	26. 9	46	45. 5
S. C	2, 917	2, 185	597	136	4, 511	48. 2	1, 206	49. 6	274	49. 0
S. Dak	2, 325	1, 975	317	33	4, 273	49. 3	764	41. 9	65	49. 9
Tenn	6, 277	3, 899	2, 184	194	7, 822	49. 3	4, 411	50. 0	387	50. 0
Tex	28, 805	26, 581	1, 516	708	52, 779	50. 7	3, 132	50. 0	1, 471	50. 0
Utah	3, 513	3, 005	477	31	6, 251	47. 6	1, 853	26. 0	70	44. 3
Vt	894	739	121	34	1, 532	50. 1	273	50. 0	71	50. 0
Va	2, 231	1, 391	715	125	3, 045	45. 9	1, 690	44. 7	255	50. 0
Wash	16, 088	15, 000	934	155	42, 245	36. 5	5, 205	20. 0	447	34. 5
W. Va	3, 362	1, 900	1, 368	94	3, 868	49. 4	2, 791	50. 0	195	50. 0
Wis	9, 742	8, 220	1, 255	267	17, 194	50. 1	4, 572	29. 0	537	50. 0
Wyo	841	735	80	26	1, 667	45. 9	238	34. 0	58	45. 5

---

[1] Amounts of Federal grants certified in fiscal year; differ slightly from fiscal-year expenditures from Federal funds reported by States.

U. S. GOVERNMENT PRINTING OFFICE: 1947